

# **Biometrically Supported Census Operations as a Population Control Measure in Counterinsurgency**

**A Monograph  
by  
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**AY 2011**

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188	
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1. REPORT DATE (DD-MM-YYYY) 12-05-2011		2. REPORT TYPE Master's Thesis		3. DATES COVERED (From - To) Jun 2010 - Apr 2011
4. TITLE AND SUBTITLE  Biometrically Supported Census Operations as a Population Control Measure in Counterinsurgency		5a. CONTRACT NUMBER		
		5b. GRANT NUMBER		
		5c. PROGRAM ELEMENT NUMBER		
6. AUTHOR(S) Shrout, Michael S., LTC		5d. PROJECT NUMBER		
		5e. TASK NUMBER		
		5f. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) School of Advanced Military Studies (SAMS) 250 Gibbon Avenue Fort Leavenworth, KS 66027-2134		8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) Command and General Staff College 731 McClellan Avenue Fort Leavenworth, KS 66027-1350		10. SPONSOR/MONITOR'S ACRONYM(S) CGSC		
		11. SPONSOR/MONITOR'S REPORT NUMBER(S)		
12. DISTRIBUTION / AVAILABILITY STATEMENT Approved for Public Release; Distribution Unlimited				
13. SUPPLEMENTARY NOTES				
14. ABSTRACT <p>This monograph examines the conduct of biometrically supported census operations as a population control measure in a counterinsurgency campaign. First, the monograph explores why the conduct of such an operation is relevant in the current operating environment. Then the monograph examines the current gap in United States Army doctrine discussing the use of a census as a population control measure in counterinsurgency. To address this gap, the monograph next focuses on several multi-disciplinary theoretical concepts that support the use of biometrically supported census operations in counterinsurgency. This portion of the monograph concludes with a conceptual model based on these theories for the conduct of the census operation. The appendix includes a methodology for the actual conduct of the census.</p> <p>The monograph then analyzes the benefits to the counterinsurgent force by conducting census operations to control the population. The monograph discusses how census operations place the counterinsurgent force in direct contact with insurgent forces for lethal operations. Two vignettes illustrate this process. The monograph then discusses the second and third order effects of gathering census information that enables the counterinsurgent force to influence the indigenous populations as a whole. This section of the monograph concludes with a discussion of the internal benefits to the counterinsurgent force at the soldier, group, and organizational levels.</p> <p>The monograph concludes with challenges to consider and recommendations. The challenges to consider when conducting biometrically supported census operations center on sovereignty and privacy issues and the potential abuse of biometric identities. The monograph recommends closing the gap in United States Army doctrine by adding a discussion of census theory and methodology to both the operational and tactical level counterinsurgency manuals.</p>				
15. SUBJECT TERMS				
16. SECURITY CLASSIFICATION OF: (U)		17. LIMITATION OF ABSTRACT  (U)	18. NUMBER OF PAGES  (U) 64	19a. NAME OF RESPONSIBLE PERSON Wayne W. Grigsby Jr. COL, U.S. Army
a. REPORT (U)	b. ABSTRACT (U)			c. THIS PAGE (U)

# **SCHOOL OF ADVANCED MILITARY STUDIES**

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## **Abstract**

### **BIOMETRICALLY SUPPORTED CENSUS OPERATIONS AS A POPULATION CONTROL**

**MEASURE IN COUNTERINSURGENCY** by Lieutenant Colonel Michael S. Shrout, United

States Army, 63 pages.

This monograph examines the conduct of biometrically supported census operations as a population control measure in a counterinsurgency campaign. First, the monograph explores why the conduct of such an operation is relevant in the current operating environment. Then the monograph examines the current gap in United States Army doctrine discussing the use of a census as a population control measure in counterinsurgency. To address this gap, the monograph next focuses on several multi-disciplinary theoretical concepts that support the use of biometrically supported census operations in counterinsurgency. This portion of the monograph concludes with a conceptual model based on these theories for the conduct of the census operation. The appendix includes a methodology for the actual conduct of the census.

The monograph then analyzes the benefits to the counterinsurgent force by conducting census operations to control the population. The monograph discusses how census operations place the counterinsurgent force in direct contact with insurgent forces for lethal operations. Two vignettes illustrate this process. The monograph then discusses the second and third order effects of gathering census information that enables the counterinsurgent force to influence the indigenous populations as a whole. This section of the monograph concludes with a discussion of the internal benefits to the counterinsurgent force at the soldier, group, and organizational levels.

The monograph concludes with challenges to consider and recommendations. The challenges to consider when conducting biometrically supported census operations center on sovereignty and privacy issues and the potential abuse of biometric identities. The monograph recommends closing the gap in United States Army doctrine by adding a discussion of census theory and methodology to both the operational and tactical level counterinsurgency manuals. The monograph also recommends specific training measures and policy guidance to ensure future applications of biometrically supported census operations are both effective and ethical.

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## Introduction-Why Military Census Operations?

On December 1, 2009, during an internationally televised speech at the United States Military Academy at West Point, President Barack Obama announced the results of his Administration's controversial strategic review of the war in Afghanistan. President Obama described a policy that increased American troop levels in Afghanistan by 30,000 to conduct a campaign to deny safe haven to al Qaeda in Afghanistan and to disrupt and degrade the Taliban led insurgency<sup>1</sup>. This policy change refocused national resources on a nine-year campaign considered by many to be a failing effort.<sup>2</sup> Although the Obama Administration was reluctant to acknowledge a shift to counterinsurgency, the additional resources made possible a revamped comprehensive and population centric counterinsurgency strategy.<sup>3</sup> As part of this shift in strategy, in January of 2010, Major General Michael Flynn, the Deputy Chief of Staff, Intelligence for the International Security Assistance Force (ISAF) in Afghanistan authored a critique of the previous nine years of intelligence collection in the war. Flynn stated:

The United States has focused the overwhelming majority of collection efforts and analytical brain power on insurgent groups, our intelligence apparatus still finds itself unable to answer fundamental questions about the environment in which we operate and the people we are trying to protect and persuade.<sup>4</sup>

This was a remarkable admission of failure by the top U.S. intelligence officer in ISAF. In the remainder of the article, Flynn outlines a plan of action to correct these intelligence deficiencies. This plan of action mainly focused on the organizational structure required to analyze and

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<sup>1</sup> Bob Woodward, *Obama's Wars* (New York: Simon & Schuster, 2010), 334.

<sup>2</sup> Michael E. O'Hanlon and Hassina Sherjan, *Toughing it Out in Afghanistan* (Washington D.C.: Brookings Institute Press, 2010), 61-78.

<sup>3</sup> Woodward, *Obama's Wars*, 325.

<sup>4</sup> Flynn, Michael T. and Matt Pottinger and Paul D. Batchelor, "Fixing Intel: A Blueprint for Making Intelligence Relevant in Afghanistan" *Voices from the Field*, Center for a New American Security, (January 2010): 4.

disseminate the intelligence information. The article did not address how to collect the much desired population centric information or background information. It is vital, therefore, for the counterinsurgent to develop a method for systematically collecting background information.

The answer to Major General Flynn's dilemma is to conduct a census of the population throughout the joint area of operations. In a counterinsurgency campaign, a systematic, biometric supported census of the indigenous population across the theater of operations will enable the counterinsurgent force to compel, control, influence and/or support the population in order to attain conditions that support establishing a lasting peace. The result of the census provides an ethnographic, geospatially based, biometrically supported, searchable white pages. The background information gained through a census can facilitate the counterinsurgents' control of the population by separating the insurgents from the population.

U.S. Army *Field Manual 3-0, Operations*, defines the desired effects of population control in a full spectrum campaign plan as stability mechanisms. Doctrinally, stability mechanisms serve the same conceptual purpose as defeat mechanisms in conventional offensive or defensive campaigns, but focus on the behavior of the indigenous population vice enemy forces. Used in this context, stability mechanisms can define how census operations control the population. Stability mechanisms are the "primary method through which friendly forces affect civilians in order to attain conditions that support establishing a lasting, stable peace."<sup>5</sup> The four defined stability mechanisms are:

Compel means to use, or threaten to use, lethal force to establish control and dominance, effect behavioral change, or enforce compliance with mandates, agreements or civil authority.

In this context, control means to impose civil order. It includes securing borders, routes, sensitive sites, population centers, and individuals. It also involves physically

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<sup>5</sup> United States Army, *Field Manual 3-0, Operations* (Washington D.C.: Government Printing Office, January 2008), 6-10.

occupying key terrain and facilities. Control includes activities related to disarmament, demobilization, and reintegration, as well as security sector reform.

Influence means to alter the opinions and attitudes of a civilian population through information engagement, presence, and conduct. It aims to change behavior through nonlethal means. Influence is as much a product of public perception as a measure of operational success. It reflects the ability of friendly forces to operate within the cultural and societal norms of the local populace while accomplishing the mission. Influence requires legitimacy. Developing legitimacy requires time, patience, and coordinated, cooperative efforts across the operational area.

Support means to establish, reinforce, or to set the conditions necessary for the other instruments of national power to function effectively.<sup>6</sup>

Logically, the first step in employing these stability mechanisms is to collect information about the target population through a census operation to gain informational advantage.

As noted counterinsurgent expert, Frank Kitson, describes, “two separate functions are therefore involved in putting troops into contact with insurgents. The first one consists of collecting background information, and the second involves developing it into contact information.”<sup>7</sup> The opportunities for a counterinsurgent force to receive actionable intelligence from higher headquarters are rare and mainly focus on the insurgents.<sup>8</sup> The large majority of information that places the counterinsurgent forces into contact with the insurgents or in a position to influence the population comes from user level development of background information into actionable intelligence. As Kitson describes it, “a cow can turn grass into milk but a further process is required to turn the milk into butter.”<sup>9</sup> It is vital, therefore, for the counterinsurgent to develop a method for systematically collecting background information. Noted counterinsurgency expert, former Marine and former Assistant Secretary of Defense for International Security Affairs, Bing West, explained in 2009:

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<sup>6</sup> *Field Manual 3-0, Operations*, 6-10.

<sup>7</sup> Frank Kitson, *Low Intensity Operations, Subversion, Insurgency, Peacekeeping* (London: Archon Books, 1971), 96.

<sup>8</sup> Kitson, *Low Intensity Operations*, 95.

<sup>9</sup> Frank Kitson, *Low Intensity Conflict*, 96.



Every treatise on counterinsurgency begins by explaining that you must hold a census and identify the population because that strips the insurgent of his protective cover. For some reason, we have refused to do that in either Iraq or Afghanistan. In Iraq, the average Sunni male was stopped twice a year for ID; yet over seven years, we claimed it was too hard to be systematic about taking fingerprints and a census.<sup>10</sup>

Stripping the insurgent of his protective cover of anonymity is the first step in separating the insurgents from the population.

## **Why a Discussion of Census Operations is Relevant**

At this point in the campaign in Afghanistan, a discussion of population control through military census operations is extremely relevant. As the United States and North Atlantic Treaty Organization (NATO) allies introduced additional forces into the prosecution of the counterinsurgency campaign in Afghanistan in 2010, western forces encountered a much broader segment of the Afghan population. This greater contact with a broader segment of the population continues into the fighting seasons of 2011. This contact with the population presents a major opportunity to sway the population away from the Taliban, al Qaeda, and associated insurgent groups to accomplish the fundamental counterinsurgent task of separating the insurgents from the population. Applying a methodical process for collecting information on the population across the theater of operations can fully exploit this opportunity. Indeed, shortly after assuming command of ISAF in the summer of 2010, General David H. Patraeus ordered the initiation of a biometric census in Afghanistan.<sup>11</sup>

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<sup>10</sup> Bing West, 2009, "Ten Questions with Bing West" *Center for Complex Operations*, (2 March 2009), <http://ccoportal.org/blogs/ten-questions-bing-west> (accessed 3 February 2011).

<sup>11</sup> Noah Schachtman, "Army Reveals Afghan Biometric ID Plan; Millions Scanned, Carded by May" *Wired.com* blog entry posted 24 September 2010. <http://www.wired.com/dangerroom/2010/09/afghan-biometric-drag-net-could-snap-millions/> (accessed 8 December 2010).

The employment of biometric technologies and robust information systems makes large-scale biometric supported census operations feasible and practical for the first time in history. Biometric identification through fingerprints, photographs and iris scans produces an indisputable source of identification that is impossible to counterfeit. Collecting biometric data in conjunction with a census is a logical step. Historically, census operations are a vital task for successful prosecution of counterinsurgency operations. United States Army doctrine, however, barely addresses the topic. Prototype biometric census operations by United States Army units in Iraq and Afghanistan point to not only a doctrinal gap, but to a gap in policy regarding the use and disclosure of biometric identities.<sup>12</sup> This paper will also address those concerns. The aim of this paper is to describe the theoretical foundation for census operations, suggest a method for biometric supported military census operations, and demonstrate the value of those operations in the current operating environment.

## **Reviewing the Literature about Census Operations**

Inquiry into the existing body of knowledge on military census operations reveals four groups of sources. First, there is the existing United States Army and Joint doctrine on counterinsurgency and stability operations. Due to the conflicts in Iraq and Afghanistan, many practitioners frequently publish tactics, techniques, and procedures in professional journals. A third group consists of counterinsurgency theorists. Finally, historians capture past conflicts and techniques used to control the population. A unique aspect of this paper is that none of the works

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<sup>12</sup> ISAFMEDIA “Soldiers Use Biometric Technology to Hunt Insurgents” YouTube upload 18 August 2009 [http://www.youtube.com/watch?v=68SiuMUCGeo&feature=player\\_embedded#at=20](http://www.youtube.com/watch?v=68SiuMUCGeo&feature=player_embedded#at=20) (accessed 30 March 2011).

in the existing literature addresses the use of biometrics to support census operations. The supporting evidence in this paper draws upon all four groups of sources.

## **What Does Doctrine Say about Census Operations?**

The United States Army and the United States Marine Corps continue to make significant progress since 2006 in addressing the institutional deficiencies in doctrine that cover the full spectrum of potential and existing armed conflicts. Especially impressive is the quantity and quality of doctrine captured and published focusing on irregular warfare or the middle of the spectrum of armed conflict since 2006. The Army's republication of *Field Manual (FM) 3-0, Full Spectrum Operations* in February 2008 codified the operational concept of the simultaneity of offensive, defensive, and stability operations and serves as a capstone product that logically leads to supporting doctrinal manuals such as *FM -24, Counterinsurgency*, *FM 3-24.2, Tactics in Counterinsurgency*, and *FM 3-07, Stability Operations*.<sup>13</sup>

### **Field Manual 3-24 Counterinsurgency**

The publication of *FM 3-24 Counterinsurgency*, in December of 2006 met with great publicity and fanfare. "The manual helped an exhausted Army feel as if it had expertise in the type of warfare it was facing in Iraq, and it positioned then LTG David H. Petraeus as the most cogent thinker about the deepest strategic and tactical questions the country was facing."<sup>14</sup> Conrad Crane, one of the primary authors on General Petraeus' team of authors for the manual, reveals that the manual's population centric theme borrowed heavily from the French

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<sup>13</sup> *Field Manual 3-0, Operations*, 3-1.

<sup>14</sup> David Cloud and Greg Jaffe, *The Fourth Star: Four Generals and the Epic Struggle for the Future of the United States Army* (New York: Random House, Inc., 2009), 220.

counterinsurgency theorists.<sup>15</sup> Despite this valuable and needed proliferation of doctrine that focuses the counterinsurgent on winning the support of the population, the principles and paradigms presented were very general and did not describe the methods of collecting population centric intelligence and information. There remains a dearth of published detailed practical techniques and methods at the operational and tactical level to accomplish the effects of population control through military census operations.

### **Field Manual 3-24.2 Tactics in Counterinsurgency**

In April 2009, eight years into the war in Afghanistan and six years into the war in Iraq, the U.S. Army published *FM 3-24.2, Tactics in Counterinsurgency*. Again, this tactical level manual was population centric and met with the same criticism as *FM 3-24* with regards to an over reliance on French theorists.<sup>16</sup> The manual, however, did tangentially address census operations even though units were conducting census operations in the theater of operations. Census operations are one type of control measure of a larger set of measures collectively known as Population and Resource Control Operations (PRC). *FM 3-24.2* defines Population Control Operations as:

government actions to protect the populace and its materiel resources from insurgents, to deny insurgents access to the populace and material resources and to identify and eliminate the insurgents, their organization, their activities, and influence while doing so. The objective of populace and resources control is to assist in preserving or reestablishing a state of law order within an area or entire nation. PRC operations are normally nontactical, police-type operations and a responsibility of HN [Host Nation] governments. However, US forces may be required to conduct PRC operations until HN security forces possess the will and capability. PRC operations may be conducted

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<sup>15</sup> Conrad Crane, "United States Doctrine" in *Understanding Counterinsurgency: Doctrine, Operations, and Challenges*, Ed. Thomas Rid and Thomas Keaney (New York: Routledge), 61.

<sup>16</sup> Gian Gentile, "The Selective Use of History in the Development of American Counterinsurgency Doctrine", *Army History* (Summer 2009): 21.

independently of clear-hold-build operations or Strike operations or as an integrated part in each of these operations.<sup>17</sup>

Despite this definition, census or registration of the population receives only one line of text listing it as a type of population control operations. The manual does not describe the process, theory or effects of census operations. The intent of doctrine does not limit freedom of action and imagination. It is logical, however, that if the doctrine prescribes a population centric approach, the doctrine would discuss in depth how to collect intelligence and information about the indigenous population. Neither *FM 3-24* nor *FM 3-24.2* discusses the use of biometrics.

## **Field Manual 5-0 The Operations Process**

In March 2010, the United States Army published *FM 5-0, The Operations Process* as its capstone planning, preparation, execution, and assessment doctrine. Chapter Three is devoted to the Army Design Methodology. “Design is a methodology for applying critical and creative thinking to understand, visualize, and describe complex, ill-structured problems and develop approaches to solve them.”<sup>18</sup> To serve as the conceptual bridge to developing detailed and deliberate plans to solve complex problems like insurgencies is the purpose of design. In the application of design, the counterinsurgent force frames the environment, frames the problem, and conceptualizes a solution. The counterinsurgent force uses “the environmental frame to understand and explain behaviors of relevant actors in the operational environment.”<sup>19</sup> The counterinsurgent force attempts to avoid solving the wrong problem through framing. “In the problem frame, analysis identifies the positive, neutral and negative implications of tensions in

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<sup>17</sup> United States Army, *Field Manual 3-24.1, Tactics in Counterinsurgency* (Washington D.C.: Government Printing Office, April 2009), 3-24

<sup>18</sup> United States Army, *Field Manual 5-0, The Operations Process* (Washington D.C.: Government Printing Office, March 2010), 3-1.

<sup>19</sup> *Field Manual 5-0, The Operations Process*, 3-5.

the operational environment given the differences between existing and desired conditions.”<sup>20</sup>

While the manual does not outwardly call for census operations to provide information about the indigenous population to drive the application of design, the two concepts integrate to form a powerful methodology to confront an insurgency.

A biometric supported census of the indigenous population results in a detailed inventory of the people, their motivations and behaviors, resources, culture, and infrastructure in a specified area of operation. The counterinsurgent force builds all future efforts towards mission accomplishment upon this foundation. The mosaic of information garnered by a thorough census operation is a fundamental tool for the campaign designer to frame the environment through “thick description” and iteratively frame and re-frame the problem.<sup>21</sup>

## **The Theoretical Foundation for Census Operations**

Just as there is no one doctrinal manual describing in detail census operations as a population control measure in counterinsurgency, the same is true for theories. By nature, counterinsurgency requires an approach that employs theories from many different disciplines. The purpose of this subsection of this paper is to develop the theoretical basis for how census operations work to control the population.

### **Basic Assumptions**

The first basic assumption to employ biometric census operations on a large scale to control the population is to ensure that the type of operations is, in fact, counterinsurgency operations and not some other type of operation. *U.S. Army Field Manual 3-24* defines counterinsurgency as “those military, paramilitary, political, economic, psychological, and civic

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<sup>20</sup> *Field Manual 5-0, The Operations Process*, 3-10.

<sup>21</sup> Clifford Geertz, *The Interpretation of Cultures* (New York: Basic Books, 1973), 6.

actions taken by a government to defeat an insurgency.”<sup>22</sup> The doctrinal manual goes on to describe the aspects of counterinsurgency making it clear that by doctrinal definition, counterinsurgency is population centric. “Victory is achieved when the population consents to the government’s legitimacy and stops actively and passively supporting the insurgency.”<sup>23</sup> This definition emphasizes the separation of the population from the insurgents. Just because a force or a government is fighting against an insurgency does not mean that they are prosecuting a counterinsurgency campaign. Evidence of this is the first four years of American involvement in Iraq. Despite the killing or capturing of many insurgents, the support for the insurgency only grew in the population. Although at the tactical level many units, practiced counterinsurgency, it was not until 2007 that the U.S. chose to employ counterinsurgency doctrine at the operational level across Iraq.<sup>24</sup> Similarly, the strategic level debate by the Obama Administration about whether to take a counter terrorism approach or a counterinsurgency approach in Afghanistan nine years into the war emphasizes that definitions matter when it comes to time and resources.<sup>25</sup> While a biometrically supported census of the population may produce benefits to man-hunting operations in a counter terrorism campaign, the time and resources involved make the cost of census prohibitive. Census operations to control the population are more appropriate for counterinsurgency campaigns.

The second basic assumption to employ biometric census operations is that there are enough resources or combat power applied towards the counterinsurgency campaign to control the population. An under resourced counterinsurgency campaign is counterinsurgency in name

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<sup>22</sup> United States Army, *Field Manual 3-24, Counterinsurgency* (Washington D.C.: Government Printing Office, December 2006, Glossary-4.

<sup>23</sup> *Field Manual 3-24, Counterinsurgency*, 1-3.

<sup>24</sup> Bing West, *The Strongest Tribe War, Politics, and the Endgame in Iraq* (New York: Random House, 2008), 222.

<sup>25</sup> Woodward, *Obama’s Wars*, 325.

only and often times more closely resembles counter guerrilla or counter terrorism campaigns. The after-action report of the significant American engagement in the village of Wanat, Afghanistan illustrates this point.<sup>26</sup> Stretched thinly over a vast geographical area with a significant population size, the counterinsurgent force could only continuously conduct clearing operations. They were not able to progress to the hold and build phases described in U.S. Army counterinsurgency doctrine.<sup>27</sup> The standard for determining whether there are enough forces or not is not based solely on the geographical size of the area of operations, but on the ratio of number of forces compared to the size of the population of the area. Under resourced counterinsurgency means that the counterinsurgent forces do not have enough soldiers to maintain constant contact with the population they are trying to influence. Studies show that the ratio of 13.26 troops per 1000 inhabitants is a historically proven guideline for the number of troops to employ in an effective campaign.<sup>28</sup> This number is inclusive of military forces, indigenous military/police and contractors. The point is that counterinsurgency is resource intensive in terms of the number of boots on the ground. As a technique of population control in a counterinsurgency campaign, a biometrically supported census is also labor intensive. The assumption is that the counterinsurgent has enough forces in relation to the population to conduct the operation.

The third basic assumption to employ biometrically supported census operations is that the counterinsurgent force has enough time to conduct the census and make use of the results to

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<sup>26</sup> Carl Fischer, Ed. *Wanat, Combat Action in Afghanistan, 2008*(Fort Leavenworth, Kansas: Combat Studies Institute Press, 2010), 202.

<sup>27</sup> *Field Manual 3-24 Counterinsurgency*, 5-18.

<sup>28</sup> John J. McGrath, *Global War on Terrorism 16, Boots on the Ground: Troop Density in Contingency Operations* (Fort Leavenworth, Kansas: Combat Studies Institute Press, 2006), 145.



control the population. “Insurgencies are protracted by nature.”<sup>29</sup> Counterinsurgent campaigns center on garnering the support of the population, which in itself requires a lot of time and unwavering will. Conducting a census of the entire indigenous population of a given area of operations is time intensive. If the resulting information and intelligence products are to be of use to the counterinsurgent in controlling the population, the census operation should begin as soon as possible in the campaign plan.

The final basic assumption is that the counterinsurgent force possesses the strategic level authority to conduct the biometric census. If there is no host nation government and U.S. forces are the lead counterinsurgent agents there is no problem as long as the results of the census are safeguarded in a responsible manner. If the situation is one of a third party counterinsurgency, where the U.S. forces are conducting the campaign on request of a host nation, it is more complicated. The assumption here is that there is host nation governmental support for the conduct of the biometrically supported census. The existing host nation government may not agree to the intrusive nature of a census in terms of the civil liberties of the population. This could make the actual conduct of the census problematic if the host nation does not agree with it. The counterinsurgent will need to persuade the host nation authorities that the risk to civil liberties is worth the control of the population and a return to security and stability. The counterinsurgent’s responsible use of the biometric data is paramount. Using the census data to determine loyalties of the population cannot devolve into lethal targeting based entirely upon a specific demographic segment. There is still a burden of proof for the counterinsurgent to prove an individual or group of individuals are enemies of the state.

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<sup>29</sup> *Field Manual 3-24, Counterinsurgency*, 1-24.

## Galula's Four Laws of Counterinsurgency

Perhaps the most fertile area of literature for finding details on military census operations as a population control measure in counterinsurgency comes from the theorists. Foremost among the theorists proposing census operations is the late French Army Colonel David Galula. In his classic work, *Counterinsurgency Warfare, Theory and Practice*, Galula recommends exactly this approach. Given that a force is embarking on a counterinsurgency campaign, it is important to understand what makes counterinsurgency inherently population centric. This helps explain why conducting a census of the population is a vital step in a counterinsurgent campaign. Galula captures this unique aspect of counterinsurgency in his explanation of the “Four Laws of Counterinsurgency”.<sup>30</sup> U.S. Army Field Manual 3-24 Counterinsurgency borrows heavily from Galula's work and explains the same aspects of counterinsurgency.<sup>31</sup>

Galula's first law is “the support of the population is as necessary for the counterinsurgent as for the insurgent.”<sup>32</sup> Galula explains that for either side, lasting victory only comes through active support of the population, which is the real terrain of the campaign. Neither the insurgent nor the counterinsurgent has enough resources to control the entire population all at once. Active support of the population maintains security and stability even in the absence of counterinsurgent forces. This is the very definition of the rule of law.

Galula's second law is “support of the population is gained through an active minority.” Galula describes the population in terms of a minority percentage in favor of the counterinsurgent, a minority percentage in favor of the insurgent, and a vast percentage of

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<sup>30</sup> David Galula, *Counterinsurgency Warfare, Theory and Practice* (New York: Praeger Publishers, 1964), 74-78.

<sup>31</sup> *Field Manual 3-24 Counterinsurgency*, 1-20.

<sup>32</sup> Galula, *Counterinsurgency Warfare, Theory and Practice*, 74.

neutrals waiting to determine which side will win to cast in their lot. The “problem of the counterinsurgent may be defined now as follows: to find the favorable minority, to organize it in order to mobilize the population against the insurgent minority. Every operation, whether in the military field or in the political, social, economic, and psychological fields, must be geared to that end.”<sup>33</sup>

Galula’s third law is “support from the population is conditional.”<sup>34</sup> Gaining and maintaining the support of the previously neutral portion of the population depends upon their perception of the situation. The population is vulnerable to coercion by the insurgents unless the counterinsurgent demonstrates the will and commits the resources to win over the long run. Unless the counterinsurgent force maintains the basic security of the population, no amount of reconstruction projects or governmental reform will influence the population.

Galula’s fourth law is that “intensity of efforts and vastness of means are essential” for a counterinsurgent campaign to be successful.<sup>35</sup> The counterinsurgent will never have enough combat power to influence the entire population at once. That is why the counterinsurgent must influence the population by, through, and with a minority of the population in favor of the counterinsurgent.

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<sup>33</sup> Galula, *Counterinsurgency Warfare, Theory and Practice*, 77.

<sup>34</sup> Galula, *Counterinsurgency Warfare, Theory and Practice*, 79.

<sup>35</sup> Galula, *Counterinsurgency Warfare, Theory and Practice*, 79.

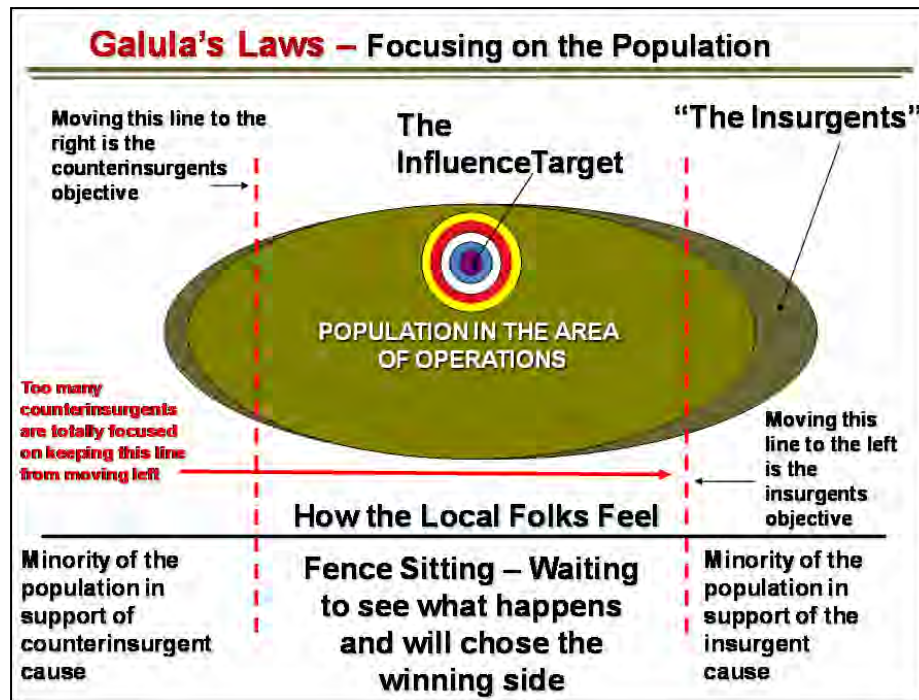


Figure 1: Graphical Representation of Galula's Four Laws.<sup>36</sup>

## Understanding Hearts and Minds

The importance of understanding Galula's Laws as they relate to census operations is that each law entails that the counterinsurgent makes repetitive and meaningful contact with the population in order to influence the population's behavior. This contact is necessary in order to ascertain which segment of the population is for, neutral, or against the counterinsurgent. The counterinsurgent then can formulate a campaign plan designed to organize the favorable minority population to mobilize the neutral portion of the population against the insurgents. The first step in this process is conducting a census to physically count and biometrically identify citizens while polling them about their backgrounds, wants, and needs. In the course of disclosing this

<sup>36</sup> The author produced this graphic based on Galula's theory.

information, the citizens often reveal their allegiances with respect to the host nation government or their likelihood of supporting the insurgency.

The cliché “winning their hearts and minds” often describes the process of attempting to understand the allegiance of the population. The exceptional counterinsurgency expert, Doctor David Kilcullen, discusses the importance of understanding the reality of this cliché. Doctor Kilcullen points to the actual 1952 statement by General Sir Gerald Templer, British Director of Operations and High Commissioner for Malaya, “The answer lies not in pouring more troops into the jungle, but in the hearts and minds of the Malayan People” and explains:

General Templer did not mean (or say) that we must “be nice to the population” or make them like us. What he meant, and his subsequent actions played out, was that success in counterinsurgency (COIN) rests on the popular perception and this perception has an emotive “hearts” component and a cognitive “minds” component.

What is essential here is making the population choose. The gratitude theory – “be nice to the people, meet their needs and they will feel grateful and stop supporting the insurgents” – does not work. The enemy simply intimidates the population when COIN forces / government are not present resulting in lip service as the population sees COIN forces / government as weak and easily manipulated. In time, this leads to hatred of COIN forces / government by the population. On the other hand, the choice theory – “enable (persuade, coerce, co-opt) the population to make an irrevocable choice to support COIN forces / government usually works better. The population typically desires to “sit on the fence” and not commit to supporting any side in an insurgency / COIN environment. COIN forces / government need to get the population off that fence and keep them there. This requires persuading the population, then protecting them, where they live. While this cannot be done everywhere, it must be done where it politically counts.<sup>37</sup>

Kilcullen’s observation brings to the fore several points that support the use of a census to control the population. First, persistent presence and interaction with the population is required to turn them in favor of the counterinsurgent. Second, persistent interaction with the population allows for the collection of information about the emotive and cognitive perceptions of the population.

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<sup>37</sup> David Kilcullen, “Counterinsurgency Seminar 07 (CS 07) featuring Dr. David Kilcullen,” *The Small Wars Center of Excellence*, 26 September 2007, <http://babylonscovertwar.com/Analysis/COIN-Kilcullen%20Small%20Wars%20Center%20of%20Excellence%20Seminar.pdf> (accessed 12 December 2010).

Finally, the counterinsurgent can use those perceptions to persuade or influence the population to make a choice with their allegiances.

## **Galula's Operational Steps for Counterinsurgency**

. In *Counterinsurgency Warfare, Theory and Practice*, Galula outlines eight steps or decisive points along multiple lines to influence the population.<sup>38</sup> The timing or synchronization of these decisive points along multiple lines is dependent upon the situation and varies from campaign to campaign and even from area to area within a campaign. Galula's operational steps represent an idea currently only captured in theory and not in U.S. Army doctrine. This idea is a systematic conceptual design to effect lasting behavioral change in the indigenous population. It is important to separate the theory Galula proposes, written after his experiences in Indochina and Algeria, and the actual practice of counterinsurgency by the French Army in either theater. The book was not a historical presentation, but a proposition for use in future conflicts. This perspective nullifies the arguments of many critics that propose Galula receives too much praise for his work based on performance of the French Army in Indochina and Algeria.<sup>39</sup>

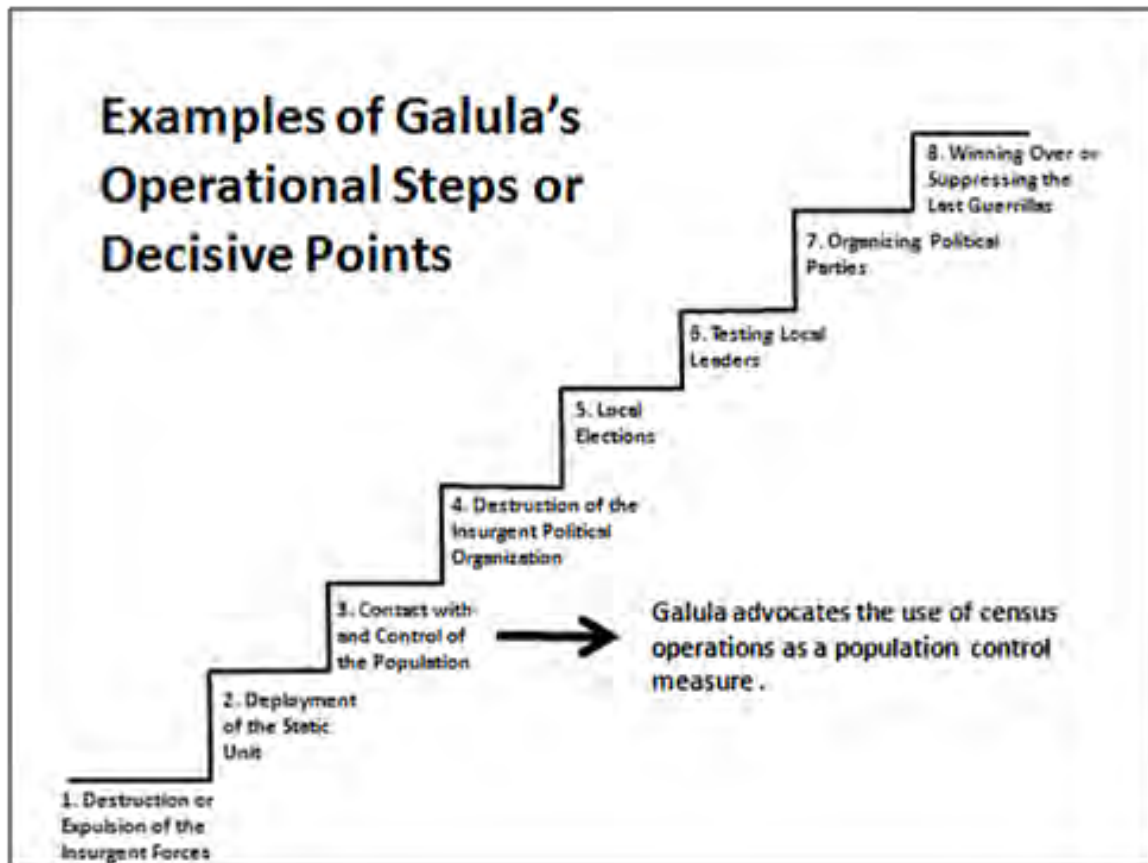
One of the foundational steps or decisive points in this behavioral change process is "contact with and control of the population." The main goals of this step are to re-establish the counterinsurgents authority over the population with population control measures and separate the population as much as possible from the insurgents. This interaction with the population allows for intelligence collection that prepares for Galula's next decisive point, which is

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<sup>38</sup> Galula, *Counterinsurgency Warfare, Theory and Practice*, 107.

<sup>39</sup> Geoff Demarest, "Let's Take the French Experience in Algeria out of U.S. Counterinsurgency Doctrine" *Military Review* (July-August 2010): 19-24.

elimination of the insurgent political and leadership cell structure. The primary population control technique Galula recommends is a census.<sup>40</sup>



**Figure 2: Galula's Operational Steps.**<sup>41</sup>

In the simplest terms, a census operation collects and records specific information about the target population. If it is a biometric supported census, this includes the collection of biometric identification data from each member of the population. At the tactical level, the mechanics of the operation takes the form of a permissive cordon and search. The unit of action task organizes into a security element (outer cordon), a support element with a direct fire plan (inner cordon), and a survey element (assault/search element) that collects the information

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<sup>40</sup> Galula, *Counterinsurgency Warfare, Theory and Practice*, 115.

<sup>41</sup> The author produced this graphic based on Galula's theory.

directly from the population. For a further description of the methodology of a census operation, refer to the appendix. As Galula describes it,

A census, if properly made and exploited, is a basic source of intelligence. It would show, for instance, who is related to whom, an important piece of information in counterinsurgency warfare because insurgent recruiting at village level is generally based initially on family ties; or who owns property or who works outside of the village and has, therefore, legitimate reasons to travel; or what is each man's source and amount of income, which would immediately separate those who can afford to indulge in abnormal activities from those who cannot. The census should, consequently, be well planned, and conducted in a systematic fashion so that the format and the results do not vary from sector to sector.<sup>42</sup>

For the census information to be of use beyond the immediate benefits gained through tactical questioning, the operation needs a process for cataloging the information into a database for in depth analysis.

Well-planned and systematic census operations therefore need to define the basic unit of counterinsurgency. The "Basic unit of counterinsurgency: the largest unit whose leader is in direct and continuous contact with the population. This is the most important unit in counterinsurgency, the level where most of the practical problems arise, where the war is won or lost."<sup>43</sup> In most cases therefore, the collection action takes place at the level of this basic unit, normally the platoon or the company. The platoon or company level is lowest level at which a unit can effectively task organize into the three elements required for a proper cordon and search. The cataloging, querying, and analyzing actions therefore take place at the level in which staffs exist, normally the battalion level. The mosaic that develops is of great value in framing the environment and problem at the operational level. This is just the picture Major General Flynn, the ISAF J2, was requesting. This battlefield geometry is at the heart of Galula's population centric counterinsurgency approach. It also brings to the fore the importance of employing

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<sup>42</sup> Galula, *Counterinsurgency Warfare, Theory and Practice*, 117.

<sup>43</sup> Galula, *Counterinsurgency Warfare, Theory and Practice*, 111.



enough combat power or boots on the ground, to actually make and maintain contact with the population the counterinsurgent is attempting to control.

### **Control as a Verb, as an Action, Versus Control as a Noun, an End in Itself**

The fundamental purpose of conducting census operations is to gain control over the indigenous population. Used in this context, the term control is not a verb as *Field Manual 3-24.1 Tactics in Counterinsurgency* defines Population and Resource Control.<sup>44</sup> The counterinsurgent force is seeking control as a noun, an end itself. In this sense, control as a noun is the degree to which the counterinsurgent force has authoritative or dominating influence over a meaningful majority of the indigenous population of an assigned area of operations through physical, emotive, and/or cognitive means in order to bring about their lasting positive behavioral change. This target population includes other actors such as host nation government leaders and security forces influencing the overall environment.

There are obvious benefits to the counterinsurgent with this type of control as Stathis N. Kalyvas points out in his work, *The Logic of Violence in Civil War*. In a well-researched chapter drawing upon multiple historical case studies, Kalyvas argues that a “key point is that control—regardless of the “true” preferences of the population—precludes options other than collaboration by creating credible benefits for collaborators and, more importantly, sanctions for defectors.”<sup>45</sup> The population makes a choice to collaborate with the counterinsurgent because they can see, feel, and reason that there are tangible benefits of such cooperation. As the counterinsurgent conducts a census operation, they impose control on the population in multiple ways. First, the persistent presence of military forces working in the population imposes the constant and visible

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<sup>44</sup> *Field Manual 3-24.1, Tactics in Counterinsurgency*, 3-24

<sup>45</sup> Stathis N. Kalyvas, *The Logic of Violence in Civil War* (New York: Cambridge University Press, 2006), 145.

potential for coercive use of force. As the census collects background information on the population, the counterinsurgent force develops greater and greater understanding about the environment. Making decisions based on this knowledge, the counterinsurgent uses greater selectivity and precision in the application of force. These actions build credibility and legitimacy for the counterinsurgent in the eyes of the population.

## **The Baghdad Postal Map**

In Baghdad in 2003, U.S. forces made an interesting discovery. Ten-digit map grid coordinates from geospatial positioning systems (GPS) pushed down by satellites were virtually useless in the three dimensional urban canyons. The GPS could tell the soldiers what street intersection they were at, but did little to identify individual building addresses. Frustrated, American soldiers turned to the centuries-old Baghdad postal map for help.<sup>46</sup> The indigenous population could identify an individual door address using the map. The map identified individual addresses using a number sequence for the district, neighborhood, street, building, and door. Soon, ingenious young soldiers were using the postal map to identify residences of members of the population on reports in addition to a GPS grid.<sup>47</sup> This system works in an area where mail delivery is available. In other areas, especially rural areas, without such a system, the counterinsurgent must devise their own method for fixing the population to the terrain in a geospatial manner.

David Galula's colleague, French Army Colonel Roger Trinquier's furthers the argument for census operations in counterinsurgency in his classic and controversial work *Modern Warfare*. The primary concept Trinquier offers is the process of gridding or dividing the area of operations

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<sup>46</sup> Lieutenant Colonel Russ Godsill, interview by author via phone, October 30, 2010. LTC Godsill was a brigade intelligence officer in Eastern Baghdad in 2003-2004.

<sup>47</sup> Lieutenant Colonel Godsill Interview, October 30, 2010.

into discrete areas manageable by a responsible basic unit of counterinsurgency. Trinquier advocates that the counterinsurgent should develop their own postal map to fix the population to the terrain. Trinquier describes the paradigm as a “grid system, in which the military organization follows the lines of the civil administration to make maximum use of all command possibilities and to permit normal administration to function insofar as possible – the department becomes a zone, the arrondissement becomes a sector, the canton becomes a quartier”.<sup>48</sup> Trinquier then goes on to call for counterinsurgent forces to conduct census operations in each of these grids as a basis for actionable information and intelligence. Critics often cite Trinquier’s views on torture as a means of collecting human intelligence.<sup>49</sup> Regardless, the key concept taken from Trinquier is his idea to tie human intelligence garnered through a census operation to a geospatial system that is searchable to inform courses of action for future counterinsurgent operations.

A prerequisite for conducting census operations is the process of gridding or dividing the operational environment into discrete geographic areas. It is an important nuance that the doctrinal term area of operations does not describe these discrete geographic areas. The intent of this grid system is to be a permanent geographic reference system for the duration of the campaign. Counterinsurgent forces should codify this grid system in the base order of the campaign plan. As mentioned before, counterinsurgency campaigns are often years long requiring the rotation of units and troops. An American Army Heavy Brigade Combat Team is not the same in terms of combat power and capability as an American Stryker Brigade Combat Team or an American Marine Expeditionary Brigade. As units rotate, it is logical that size of areas of operation change based on capability. The gridding system does not change. This permanent

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<sup>48</sup> Roger Trinquier, *Modern Warfare: A French View of Counterinsurgency* (West Port, Connecticut: Praeger Security International, 1964.), 61.

<sup>49</sup> Trinquier, *Modern Warfare*, 19.

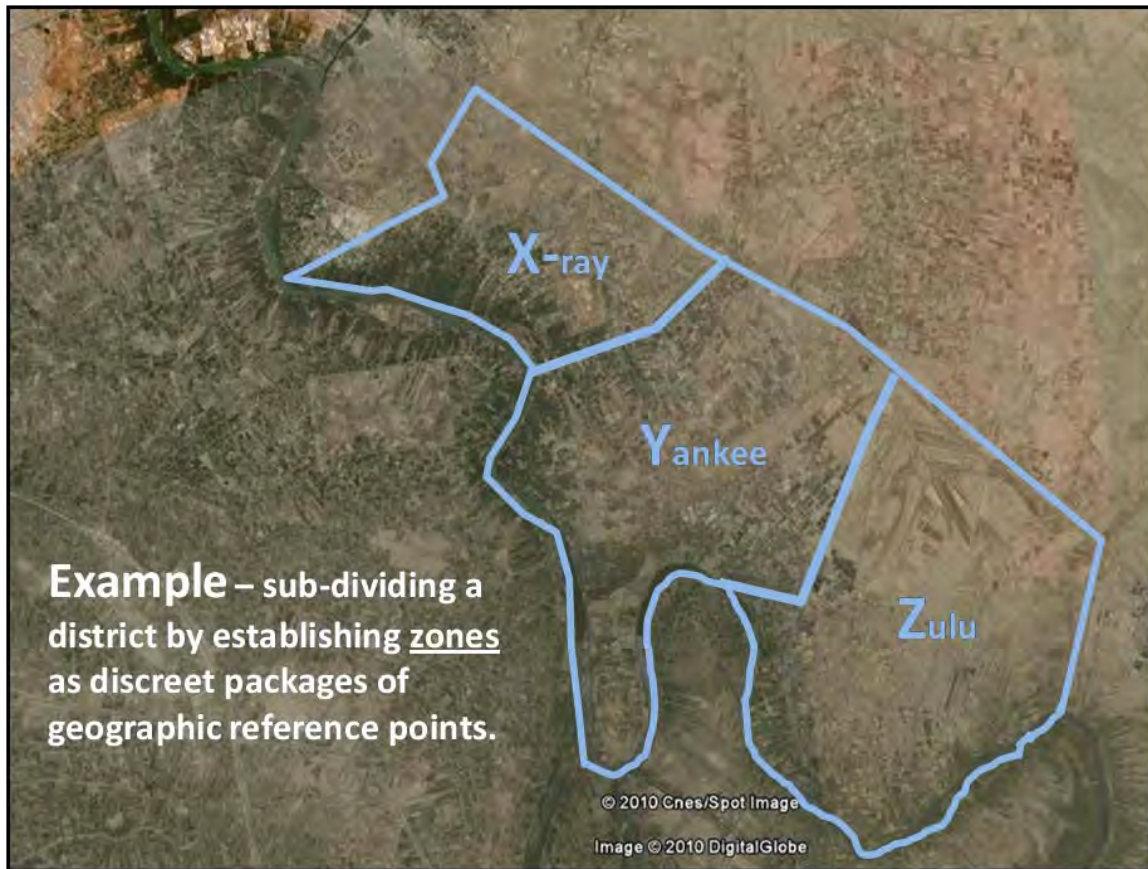
system ensures that information and data about the population is tied geospatially to the actual terrain like a White Pages Telephone/Address Directory and not tied to arbitrary unit boundaries that are drawn and re-drawn based on rotations. This mitigates the risk of loss of information during relief-in-place operations and maintains continuity of effort in the campaign plan.

As Roger Trinquier indicates, these discrete geographic areas follow as much as possible along the “lines of peacetime administration.”<sup>50</sup> For example, using provincial or district boundaries facilitates unity of effort in a whole of government approach. The counterinsurgent force should also line up the boundaries as much as possible with host nation security force jurisdictions, judicial jurisdictions, and host nation police jurisdictions. Subdivision of the discrete geographic areas must go below the district level if the gridding framework is to be flexible enough to withstand the rotational pressure to re-draw the boundary lines. If done properly, the unit’s area of operations is right-sized by adding or subtracting discrete geographic areas from a unit’s responsibility based on the unit’s capabilities and combat power. In the process of right sizing the area of operations, the counterinsurgent force must consider the ratio of security forces to population and Galula’s concept of the basic unit of counterinsurgency.

The counterinsurgent force subdivides the entire political space, the entire country as described. Spreading the counterinsurgent force thinly like peanut butter over the entire country is not the intent. The counterinsurgent force focuses in an inkblot way in the geographic areas that are vital to influencing and controlling the population. Sub-dividing the entire political space is necessary because when an individual identity is collected that is outside an assigned discrete geographic area, that identity has a specific geographical address. This will often be the case when the counterinsurgent force is collecting identities from host nation security forces or other governmental programs with large payrolls that require vetting.

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<sup>50</sup> Trinquier, *Modern Warfare*, 58.



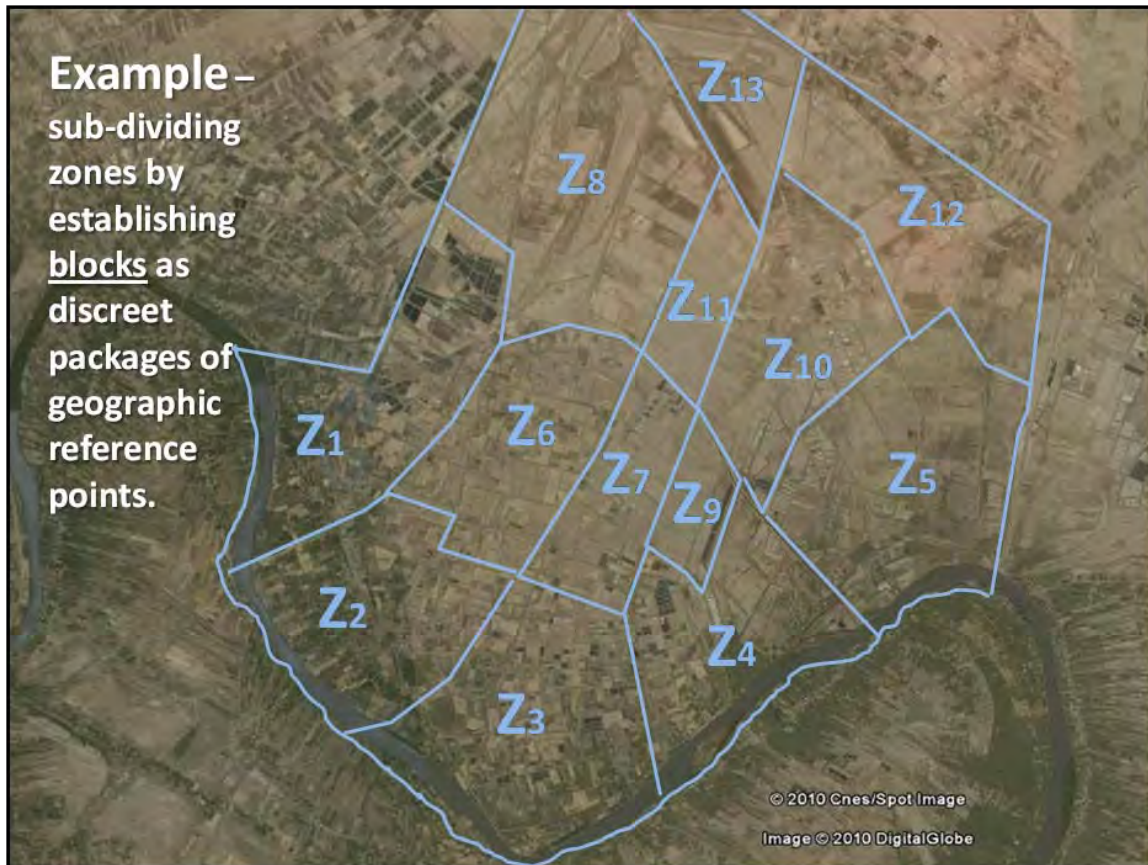
**Figure 3: Sub-dividing Districts into Zones.<sup>51</sup>**

The embedded figures show the gridding of the area of operations. First province, then district boundaries, and then further gridding by the counterinsurgent force. These spaces further break the district down into zones, and then blocks, then compounds, and finally individual building numbers. This standardized framework is now the basis to begin collecting census information. The counterinsurgent force assigns individual biometric identities in a database to their exact place of residence like a telephone book. The operational level headquarters should dictate in the base campaign plan the naming conventions and the type of software or command and control system used to establish this gridding system. Of course, the bulk of input work

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<sup>51</sup> The author produced this example using Google Earth and Microsoft Power Point. It is not an actual graphic depicting real world graphic control measures.

required to establish such a system is bottom –up. The bottom-up nature of the process dictates the need for codified standards across the theater to ensure interoperability. The added soldiers to intelligence staffs and company intelligence support teams (COISTs) mitigate the strain caused by such an undertaking.



**Figure 4: Sub-dividing Zones into Blocks.**<sup>52</sup>

Fixing the population to the terrain is an example of what counterinsurgent expert Geoff Demarest calls territorial scrutiny. “Territorial scrutiny is a map-based investigation and analysis method that is built upon human territorial nature. The idea is to expose, understand, and relate the nature of conflicts through territorial mapping. It happens that over time and because of new

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<sup>52</sup> The author produced this example using Google Earth and Microsoft Power Point. It is not an actual graphic depicting real world graphic control measures.

technologies, human territoriality has become increasingly mappable.”<sup>53</sup> The goal of this type of inquiry is to collect census data from the population in order to fix them to the terrain in a tessellated fashion. Fixing the population to the terrain by associating the people with a known address forms a tessellated pattern not unlike ceramic tiles on the floor with no overlap. One nuclear family assigned to each plot of land, apartment, or compound much like a telephone book. This type of information is very useful to the counterinsurgent force in locating an individual in the indigenous population. By nature, however, human behavior is not as neat as tiles on the floor. Human behavior is complicated, imbricated or overlapping like fish scales. Examples of the imbricated patterns of human behavior are tribal and family lines, property ownership, political affiliation, ethnicity, race, sect, union affiliation, farm union, gang membership, and criminal behavior.<sup>54</sup> The counterinsurgent force collects this ethnological information during the census at the same time they are biometrically fixing the population to the terrain. Overlaying the two sets of information on map produces a mosaic that enables the counterinsurgent force in thickly describing the environment and framing the true nature of the conflict.

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<sup>53</sup> Geoff Demarest, “Winning Insurgent War: Back to Basics,” (Unpublished book manuscript, Foreign Military Studies Office, Fort Leavenworth, Kansas, 2011), 163.

<sup>54</sup> Geoff Demarest, interview by author, Foreign Military Studies Office, Fort Leavenworth, Kansas, April 2010.



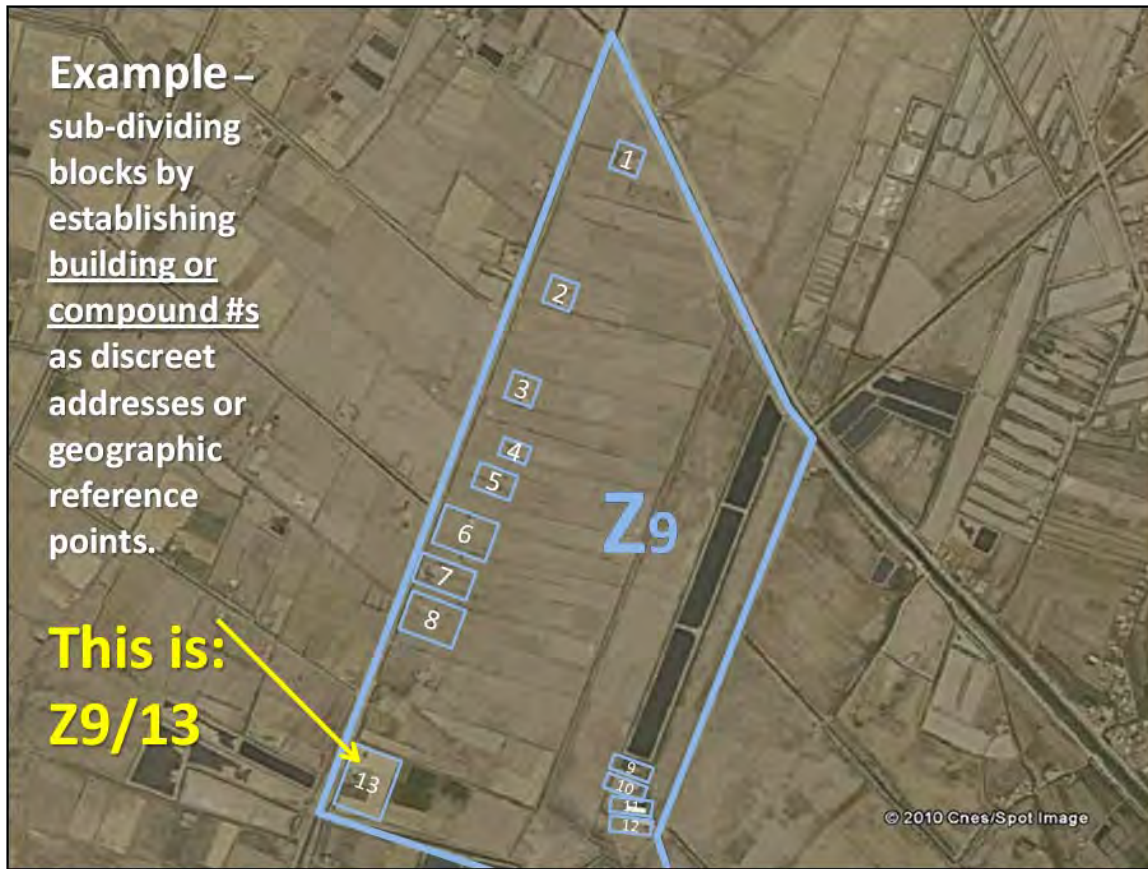


Figure 5: Establishing Discreet Addresses<sup>55</sup>

## Adding the Power of Biometrics to the Census

The employment of biometric technologies and robust information systems makes large-scale biometric supported census operations feasible and practical for the first time in history.

“Biometric technologies take automated measurements of certain physiological or behavioral traits for purposes of human recognition.”<sup>56</sup> These traits routinely include fingerprints, an iris scan, and a front on picture of the face. The use of a nom de guerre or counterfeit identification

<sup>55</sup> The author produced this example using Google Earth and Microsoft Power Point. It is not an actual graphic depicting real world graphic control measures.

<sup>56</sup> John D. Woodward Jr., “Using Biometrics to Achieve Identity Dominance in the War on Terrorism” *Military Review* (September-October 2005):30.



papers is as old as insurgency itself. The purpose of using biometrics is to strip away the insurgents' anonymity.

Anonymity is that obscure quality of going unnoticed or unidentified which helps an insurgent or outlaw act and move without being caught. Speed is good, too, but if there were a key word or 'nub' to either the survival or demise of insurgency, separatist movement, rebellion, revolution, mafia and other related insults to the State, that word would be anonymity. With anonymity rides facility of movement, the possibility of surprise, security in escape, sanctuary, and the potential to enjoy illicit profits.<sup>57</sup>

To strip away the insurgents' anonymity, the counterinsurgent force needs to establish identity dominance in their area of operations. "Identity dominance means U.S. authorities could link enemy combatant or similar national-security threat to his previously used identities and past activities, particularly as they relate to terrorism and other crimes."<sup>58</sup> United States forces fielded hand held biometric collection devices down to the tactical level beginning in 2007.<sup>59</sup> The technology and expertise to conduct a biometric supported census exists today.

Just as important as the ability to collect the biometric identity data is the ability to store and search the data. Since 2007, the Biometrics Identity Management Agency (BIMA), a Department of Defense agency, is developing the policy, standards, and architecture for storing and searching biometric data within the department and across the interagency.<sup>60</sup> "Thanks to advances in computer technologies, pattern recognition, and algorithm development, some biometrics can search through large databases reliably and quickly."<sup>61</sup> This type of identity

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<sup>57</sup> Demarest, "Winning Insurgent War: Back to Basics", 2.

<sup>58</sup> John D. Woodward Jr., "Using Biometrics to Achieve Identity Dominance in the War on Terrorism":30.

<sup>59</sup> United States Department of Defense, *Biometrics Task Force Annual Report FY07*. (Washington, D.C.: Government Printing Office, October 2007), 33.

<sup>60</sup> United States Department of Defense, *Biometrics Task Force Annual Report FY07*, 12.

<sup>61</sup> John D. Woodward Jr., "Using Biometrics to Achieve Identity Dominance in the War on Terrorism." 33.

dominance has the potential to make a biometric supported census an extremely powerful method to control the population.

## **The Population Sifter as a Conceptual Model**

Integrating the preceding theoretical concepts into a methodology to control the population is the next step. A useful conceptual model to understand how census operations control the population is that of a sifter. A common hand-held kitchen appliance used to sift powders such as flour. As Frank Kitson remarks, “the problem of destroying enemy armed groups and their supporters therefore consists very largely of finding them.”<sup>62</sup> Whether the operating environment consists of rugged, complex, mountainous terrain, triple canopied jungles, or densely populated urban areas, there remains the basic requirement to separate the insurgents from the population. Expressing this separation process as a sifter is conceptually helpful.

Consider Figure 6 shown below. The sifter is the census operation. Pouring the entire population through the census sifter provides tangible results both during the process and upon completion. The tempo, the rate of squeezing the sifter handle, correlates to the resource and time trade-offs negotiated during the targeting process. Out the bottom of the sifter comes actionable, useful information in the form of a searchable biometric database that is geospatially linked. This is the information Major General Flynn, the former ISAF J-2, was looking for in his article in January 2010. This is the information gained through census operations that enables further lethal and non-lethal surge operations.

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<sup>62</sup> Kitson, *Low Intensity Operations*, 95.

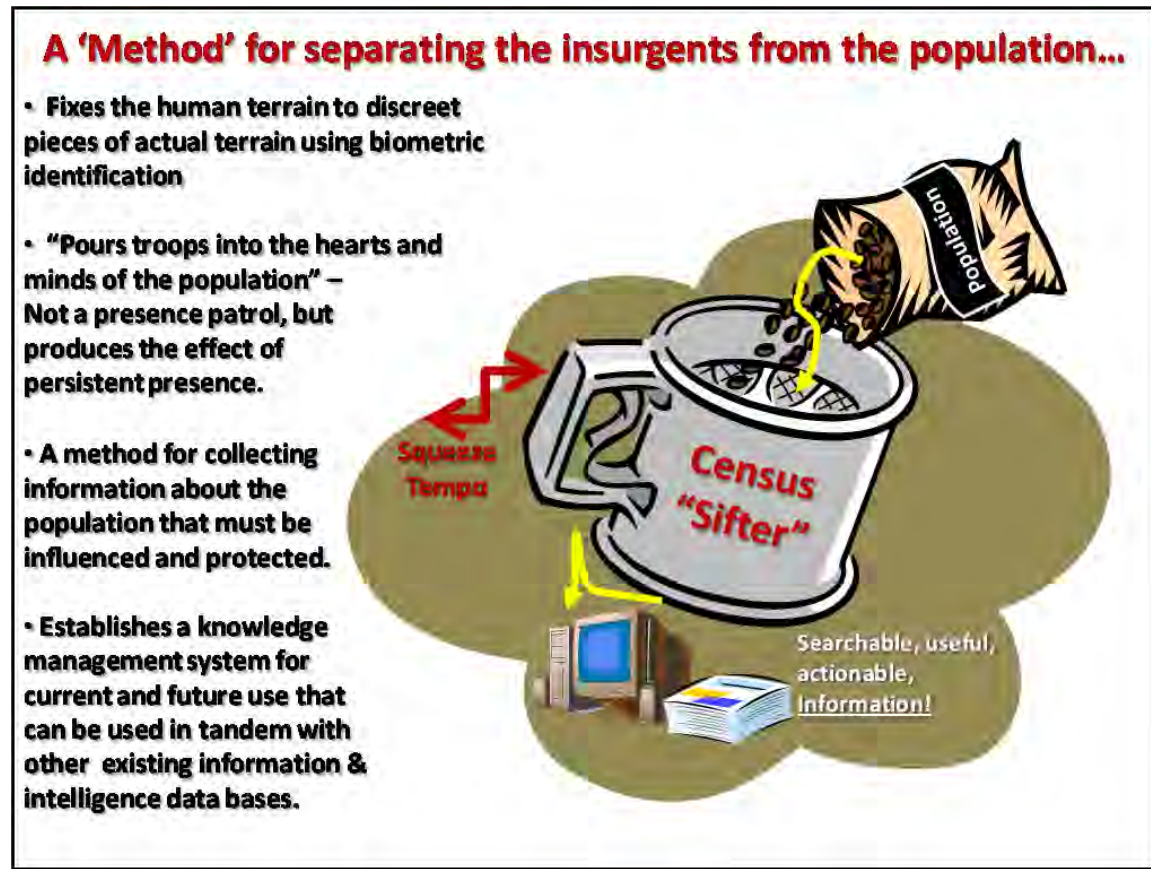


Figure 6: Conceptual Model of the Population Sifter.<sup>63</sup>

For example, the number of school-aged children in a specific area ascertained during census operations may drive the decision to devote time, combat power, funds, and work to an operation aimed at revitalizing a local school. This targeted effort addresses an actual need of the population and influences them both emotionally and cognitively. This promotes legitimacy of the counterinsurgent force and their host nation government partners in the eyes of the population. With proper information operations conducted in conjunction with the non-lethal operation, the counterinsurgent force is likely to reap a downstream windfall of increased human intelligence sources. Acting on reliable background information garnered through a census

<sup>63</sup> The author produced this graphic.

prevents the waste of throwing money at untargeted problems, projects unwanted by the population or projects that will increase corruption. It is a simple extrapolation to how the census sifter works in regards to lethal operations such as raids or cordons and searches. The data, especially when combined with other forms of intelligence, increases the precision of such lethal operations. This, in turn, further builds the legitimacy of the counterinsurgents cause in the eyes of the population and further separates the population from the insurgents. For a more detailed and tactical level methodology for census operations, refer to the appendix to this paper.

## **The Value in Conducting Census Operations**

The purpose this subsection is to describe the potential benefits to the counterinsurgent force that conducts biometrically supported census operations. These assertions fall into four major categories. First, just through the collection of background information, the counterinsurgent force comes to understand the enemy's narrative and can better focus his own intelligence assets for direct action. Second, as Kitson describes, the background information about the population, once processed, provides the counterinsurgent force with the intelligence that is actionable, thus placing the counterinsurgent forces in direct contact with the insurgents.<sup>64</sup> Third, there are benefits to the counterinsurgent force's campaign that go beyond the actionable intelligence that places them in contact with the enemy. These second and third order benefits influence the population as a whole. Finally, there are benefits to conducting the census that are internal to the counterinsurgent force in terms of morale and unit culture.

## **Understanding of the Enemy and Focusing Intelligence Assets**

Generating background information about the population leads the counterinsurgent force to develop actionable intelligence about the insurgents. The logical line of thinking is the use of

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<sup>64</sup> Kitson, *Low Intensity Operations*, 96.

biometric data to strip away the anonymity of the insurgents is the most important way to use census data. It is important, but only at the final stages of lethal targeting and positive identification of the enemy. The census, however, serves a broader and more important role in generating actionable intelligence.

Insurgency is fundamentally a strategy of the weak and the insurgent adopts asymmetric means to counter the strengths of the counterinsurgent. More important than the realization that the insurgent will fight back in an asymmetric manner is the ontological or cultural understanding of the motivation behind the insurgent cause.<sup>65</sup> David Kilcullen, a contemporary counterinsurgency theorist illustrates this point brilliantly in his book *The Accidental Guerrilla*. Kilcullen describes how, in their quest to defeat takfiri-based terrorist organizations like al Qaeda, culturally blind western forces end up fighting local populations just because they infringe upon the accidental guerrilla's way of life.<sup>66</sup> The collection of the background information from the population helps the counterinsurgent force avoid this phenomenon through an understanding of the narrative from the population and insurgents' viewpoint.

By definition, the asymmetric strategy and tactics employed by the insurgent are often foreign to and outside the mental model of the counterinsurgent force. Developing the narrative that drives the insurgents' behavior helps the counterinsurgent force understand the insurgents' tactics. Gal Hirsch, a leading Israeli Defense Force scholar, relates it this way, "Generic operational forms in the enemy's performance may be difficult to recognize, but it might be possible to identify generic tactical moulds, which would serve the enemy's logic of

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<sup>65</sup> Joseph Henrotin and Tanguy Struye de Swielande, "Ontological-Cultural Asymmetry and the Relevance of Grand Strategies" *Journal of Military and Strategic Studies*, Vol. 7, Issue 2, (Winter 2004), 6.

<sup>66</sup> David Kilcullen, *The Accidental Guerrilla: Fighting Small Wars in the Midst of a Big One*, (New York: Oxford University Press, 2009), 1-38.

disappearance, infiltration, stealth, and surprise.”<sup>67</sup> An example is that by studying the positioning, location, and lethality of improved explosive devices may reveal that the insurgents’ intended target is not the counterinsurgent force, but host nation security forces or other hostile members of the population traveling in less protected vehicles. The counterinsurgent force can take this thread in conjunction with the narrative describing the insurgents’ motivations and better focus intelligence assets for further collection to drive future operations.

The census informs the focusing of intelligence assets to further develop the enemy network and reveal the insurgent leadership. Census operations are a great opportunity to attach human intelligence collection teams (HCTs) and other enablers to maneuver units in order to immerse them in the population. The human intelligence (HUMINT) collected during the census and follow up contacts serves to corroborate or focus other types of intelligence collection, specifically signals intelligence and image intelligence. If, in the course of a routine census, the finding of a weapons cache or other paraphernalia exposes the insurgent, the counterinsurgent has probable cause to continue the search. This is extremely important in third party counterinsurgency campaigns where the host nation government requires search warrants. Finally, in raids, the biometric identities collected during a census serve as positive identification of the insurgent. Two vignettes follow that more completely demonstrate these points.

## **The Results: Two Vignettes Describing Actionable Intelligence**

Two vignettes can describe the tangible benefits to the counterinsurgent force in conducting a biometrically supported census.<sup>68</sup> The definition of tangible is that the information

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<sup>67</sup> Gal Hirsch, “On Dinosaurs and Hornets: A Critical View on Operational Moulds in Asymmetric Conflicts” *Royal United Services Institute Journal*, Vol. 148, no. 4, (August 2003): 60.

<sup>68</sup> Both vignettes are fictional and based loosely on experiences (within the limits of non-disclosure of classified information) by 2<sup>nd</sup> Battalion, 6<sup>th</sup> Infantry, in Iraq from 2008 to 2009. The author commanded this battalion during these operations.

collected in the census operation places the counterinsurgent force in direct contact with the very elusive insurgent by stripping away his anonymity. The first vignette describes a case where the counterinsurgent force comes upon actionable intelligence while conducting the routine sifting of the population. The second vignette describes a windfall scenario where the counterinsurgent force comes upon actionable intelligence while vetting a local labor force.

Consider this vignette. 1<sup>st</sup> Battalion of 2<sup>nd</sup> Brigade Combat Team is conducting counterinsurgency operations in their area of operations. The battalion is on the sixth month of their campaign, which includes census operations as an aspect of controlling the population. Although not the first third-party counterinsurgent force in the area, 1<sup>st</sup> Battalion is the first unit to conduct systematic biometrically supported census operations. 1<sup>st</sup> Battalion is partnered with a brigade of host nation security forces and conducts all operations by, with, and through their host nation partners. Alpha Company, operating with an attached platoon of host nation forces, is conducting census operations in Area Zulu/Three or Z3 (see Figure 4). The area encompasses the heart of a village of approximately three hundred citizens. Alpha Company coordinated with the village civic leader to conduct the census. Alpha Company is conducting a humanitarian assistance operation in conjunction with the census by providing drinking water filters to the head of each household.

During the course of the census operation, a male family elder approaches the soldiers of Alpha Company and requests to speak to them in private. Due to the routine contact Alpha Company makes with the population in the area and the perceived atmosphere of improved security, or perhaps the enticement of the new water filter, the family elder feels safe enough to offer intelligence about insurgent activities in the area. The soldiers process the man through the census obtaining his biometric data and completing the associated questionnaire containing the information requirements desired by 1<sup>st</sup> Battalion. That evening, upon completion of the operation, the 1<sup>st</sup> Platoon leader is charged with writing the patrol report covering the activities of the day. As part of the report, the 1<sup>st</sup> Platoon Leader recommends that 1<sup>st</sup> Battalion's attached

Human Intelligence Collection Team (HCT) contact the family elder for further discussions. The patrol report is submitted by the Alpha Company Intelligence Support Team (COIST) to the 1<sup>st</sup> Battalion S2(Intelligence) Section. The S2 disseminates the report along with all others from that day in the daily intelligence summary. The HCT Team leader reads the report and after a brief discussion with the S2, decides to contact the man.

Before calling in the family elder, the HCT Team Leader vets the man by running his identity through several intelligence databases. There are negative results, meaning that the man appears to be just what he is, a family elder from a rural village. Later that day, the source arrives at the 1<sup>st</sup> Battalion Combat Outpost for a meeting with HCT. During the course of the meeting, the family elder indicates that an insurgent leader recently returned to the area. The insurgent leader is attempting to recruit young men from the village for future insurgent activities and the family elder does not like it. The HCT Team Leader asks the family elder if he could pin point the location of the insurgent's residence on a satellite photo of the area. The family elder is able to identify the insurgent's compound and house. The HCT Team Leader passes this information and the alleged insurgent's name to the 1<sup>st</sup> Battalion S2 Section.

An analyst in the S2 Section plots the alleged location of the insurgent's house on the satellite photo in the S2 Section that includes the discrete geographic boundaries drawn for the purpose of the census operation. The insurgent's house is in area Zulu/Nine and is building number 13, or Z/9/13 (refer to Figure 5). The analyst determines from the census database that Alpha Company conducted a census of Z/9/13 the previous week. Of the four adult males at the house during the time of the census, one of their names closely matches the name provided by the source. The analyst quickly checks the biometric database and retrieves a picture of the alleged insurgent. He also checks several intelligence databases and determines that the alleged insurgent appears in multiple reports generated by the previous counterinsurgent battalion in the area and in several reports from the last six months by the neighboring brigade combat team. The analyst



takes the picture, along with five or six random pictures of indigenous males, and produces a picture line-up much like those used by police forces.

In the neighboring building, the HCT Team Leader shows the family elder the picture line-up and asks him to identify the insurgent. The family elder immediately points out the insurgent. Over the course of the next twelve hours, 1<sup>st</sup> Battalion coordinates with their partnered host nation brigade to conduct a cordon and search of Z/9/13. A company of the host nation brigade with Alpha Company providing a platoon in support conducts the cordon and search the next morning. The routine contact Alpha Company makes with the population through census operations causes no alarm amongst the population. The cordon and search occurs in broad daylight with no use of force. Alpha Company soldiers biometrically identify the insurgent on the objective and host nation forces take him into custody. The precision use of force impacts the attitudes of the local population in favorable way immediately as news of his arrest reaches the family elder and his family through informal channels. The second, third and fourth order impacts of the operation are realized as the counterinsurgent forces (both in 1<sup>st</sup> Brigade Combat Team's area and the area of the neighboring brigade) follow the intelligence threads of the recruiting, financing and operational practices of the insurgent organization.

Consider a second vignette. Again, 1<sup>st</sup> Battalion is used as the example counterinsurgent force. This time Bravo Company is assisting the local municipal government in clearing overgrown irrigation canals. Bravo Company is supporting the effort by supervising the letting of a contract through the Commander's Emergency Reconstruction Program (CERP). Bravo Company provides the funds for the labor force and the local government learns to prioritize projects based on the essential service needs of the population.

As part of the recruitment drive to obtain one hundred young males to provide manual labor for the canal-clearing project, Bravo Company soldiers working with the local government and host nation security forces, collect the normal census data and biometric identities of the young men. Of the prospective applicants, it is determined that 125 are residents of 1<sup>st</sup> Battalion's

area of operations and 25 are non-residents. The prospect of a job induces the local population to commute or in some cases migrate. The Bravo Company COIST, working with the 1<sup>st</sup> Battalion S2 and S5(Civil/Military Operations) Sections, determine the residency status by comparing the recruits' biometric data to previously collected census results. The purpose of the project was not only to clear canals and build legitimacy of the municipal government, but also to win the recruiting battle with the insurgent organization by employing young men from the local area. Thus, once vetted for security concerns, Bravo Company offers employment to one hundred of the young men through the municipal public works office.

The vignette, however, does not end with the successful employment of young local men. The 1<sup>st</sup> Battalion S2 vets the remaining twenty-five non-residents against the biometric data base. In this instance, previous census operations by neighboring units did not enroll all twenty-five men. One individual did match a previously unknown latent biometric data taken from evidence involved in an attack on counterinsurgent forces in the area of operations of the neighboring brigade combat team. The 1<sup>st</sup> Battalion S2 quickly passes the new census data collected from the possible insurgent through 1<sup>st</sup> Brigade Combat Team S2 to the adjacent brigade combat team. With quick action, counterinsurgent forces close in and detain the individual. As with the first vignette, the counterinsurgent forces realize the second, third and fourth order impact of the operation as they follow the intelligence threads of the recruiting, financing and operational practices of the insurgent organization.

These two vignettes demonstrate the potential benefits of conducting biometrically supported census operations in a counterinsurgency campaign to control the population. It is important to note that these two success stories are possible due to three main points. First, at the soldier level, the soldiers were skilled in the use of biometric collection techniques due to a pre-deployment training emphasis on these tasks. Second, the leaders of the counterinsurgent force understood the importance of incorporating the results of census operations into campaign plan at all opportunities. Finally, because the operational level headquarters directed a census with

codified standards across the entire area of operations, synergistic benefits resulted between adjacent brigade combat teams. These two vignettes demonstrate the tangible results of the census operation by placing the counterinsurgent force in direct contact with the very elusive insurgent by stripping away his anonymity. There are, however, additional benefits to census operations that go beyond intelligence that places counterinsurgent forces in contact with the enemy.

## **Benefits beyond simply useful information about the population**

There are benefits to the counterinsurgent force's campaign that go beyond the actionable intelligence that places them in contact with the enemy. These second and third order benefits allow the counterinsurgent force to move beyond lethal operations to influence the population as a whole, non-lethally. The most important benefit is that the results of a census help the counterinsurgent force understand the environment. *Field Manual 3-24, Counterinsurgency*, states clearly:

Successful conduct of COIN (counterinsurgency) operations depends on thoroughly understanding the society and culture within which they are being conducted. Soldiers and Marines must understand the following about the population in the AO (Area of Operations): Organization of key groups in the society, Relationships and tensions among groups, Ideologies and narratives that resonate with groups, Values of groups (including tribes), interests, and motivations, Means by which groups (including tribes) communicate, and The Society's leadership system.<sup>69</sup>

This aspect of the benefits of the census goes well beyond the usefulness of collecting biometric identities. The knowledge garnered through the census produced by the populations' answers to census questions designed to answer specific information requirements is the true value of the census.

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<sup>69</sup> *Field Manual 3-24, Counterinsurgency*, 1-22.

This knowledge is indispensable in the process of iteratively framing and re-framing the environment and problem in the application of conceptual campaign design as called for in U.S. Army doctrine.<sup>70</sup> For example, factional violence between neighboring segments of the population may drive a specific intelligence requirement to determine what is driving the violence. The census question that ultimately may answer that intelligence requirement might center on property ownership. This is why the leaders of the counterinsurgent force cannot let the census degenerate into simply the collection of biometric identities. It is all about understanding the narrative. Thus, counterinsurgent leaders cannot place too much emphasis on the numbers or progress of the census. This is measuring outputs versus measuring outcomes. While measuring understanding of the operating environment is difficult, there are ways to do it. Subjectively assessing the counterinsurgent force's ability to recite the enemy's narrative, the population's narrative, and the aims of their own campaign plan is one such method.

A benefit of collecting useful information from the population is using the census to answer questions about the capabilities and gaps of the host-nation government in providing essential services to the population. As counterinsurgency expert Bernard Fall points out, "when a country is being subverted, it is not being outfought; it is being out-administered."<sup>71</sup> In the competition to gain the support of the population, it is incumbent upon the government to provide essential services to the population. If there is a lack of essential services, caused by their hand or not, the insurgents use that as advantage to influence the population against the government. The census can provide an opportunity to measure the political pulse by asking questions about the legitimacy of the host nation government and security forces. The counterinsurgent force can

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<sup>70</sup> *Field Manual 5-0, The Operations Process*, 3-1.

<sup>71</sup> Bernard Fall, 1998 "The Theory and Practice of Insurgency and Counterinsurgency" *Naval War College Review*, Winter 1998, <http://www.au.af.mil/au/awc/awcgate/navy/art5-w98.htm> (accessed 29 March 2011).

assist the government, or if necessary, supplant the government in providing essential services. This builds legitimacy for the government/counterinsurgent force team in the eyes of the population. Census questions regarding essential services are easily formulated using existing U.S. Army doctrine. *FM 3-24.2, Tactics in Counterinsurgency, Chapter 1, Section III*, outlines the analysis of civil considerations using ASCOPE (Areas, Structures, Capabilities, Organizations, People, and Events)<sup>72</sup>. This useful paradigm incorporates the collection of information on essential services by including an analysis of SWEAT-MSO (sewers, water, electrical, academic, trash, medical facilities, safety, and other considerations.) Using this information gathered by a census to conduct a nodal analysis and identify gaps in essential service coverage, the government/counterinsurgent force team can prioritize and focus reconstruction and humanitarian resources on the segments of the population that need it most. In some circumstances, those resources may focus on the segment of the population that will provide a greater return on investment in terms of support for the counterinsurgent's cause.

Maintaining consistent and purposeful contact with the people is another example of how census operations influence the population as a whole. Census operations are repetitive as the counterinsurgent force works their way through the area of operations sifting the population. These repetitive patrols provide purposeful presence with a clear task and purpose for the counterinsurgent force to collect information and negate the need for the use of patrols for the ambiguous and inefficient purpose of just maintaining presence. These patrols give the population a feeling of security beyond any deterrence effect they may have on the insurgents. Sociologists studying community policing provide the theory behind the populations' feeling of security due to the repetitive patrols. The patrols have not only the obvious power to coerce if necessary, but

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<sup>72</sup> *Field Manual 3-24.2, Tactics in Counterinsurgency*, 1-10.

“symbolic power” that represents the rule of law and order to the population.<sup>73</sup> These are exactly the effects the counterinsurgency campaign is seeking: creating a secure environment, allowing for reconstruction efforts, and influencing the majority of the population to support the counterinsurgent force/government team.

The repetitive contact with the population through census operations provides another opportunity that reinforces this symbolic power in a positive manner. Borrowing from the discipline of marketing, the repetitive patrols promotes ideal information operations opportunities by providing more touch points with the population. Touch points are “key points where an organization interacts with its customer.”<sup>74</sup> Soldiers armed with powerful messages to persuade the population conducting repetitive patrols throughout the area of operations produce an effect. Conducting census patrols in conjunction with humanitarian assistance operations, such as distributing water purification filters or basic medical engagements, makes these effects even more powerful.<sup>75</sup> Inducements like these soften the edge of the intrusive nature of collecting the census information and may even lead to significant human intelligence reports. The information gained from the population during these combined census patrols is in itself reinforcing of the entire effort. “Successful marketing campaigns begin with thorough research to identify consumer trends. Just as military intelligence spends much of its time assessing the many facets of threat organizations, we must make a greater effort to collect usable market data about the IO

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<sup>73</sup> Ian Loader, “Policing and the Social: Questions of Symbolic Power” *The British Journal of Sociology*, Vol. 48, no. 1 (March 1997): 3.

<sup>74</sup> Stoney Trent and James L. Doty, III, “Marketing: An Overlooked Aspect of Information Operations” *Military Review*, (July-August 2005):72.

<sup>75</sup> *The Global Report, News from the Front Lines*, “The U.S. Army Trading Blankets for Biometrics” No. 517, February 10-16, 2009.  
[http://www.theglobalreport.org/?section=archives&cat\\_id=167&article\\_id=6112&rowx=0](http://www.theglobalreport.org/?section=archives&cat_id=167&article_id=6112&rowx=0) (accessed 30 March 2011).

(information operations) target population. At a minimum, this includes identifying market segments and their leaders, their goals, motivations, expectations and daily rituals.”<sup>76</sup>

Another benefit of biometrically supported census operations is the potential for the census to have a deterrent effect on the population due to a “big brother” syndrome. The hypothesis is that if insurgents or insurgent supporters know that the counterinsurgent force both knows where they live and possesses their biometric identification; it may act as a deterrent to illicit activities. From the field of criminology, theorists posit the routine activity theory of criminology. This theory states that criminal behavior occurs at the meeting of three criteria: a motivated actor, a suitable target, and the absence of a guardian to prevent the crime.<sup>77</sup>

Throughout this paper, a repeating theme is that the counterinsurgent force will never have enough combat power to act as the guardian over the entire area of operations and population. Nor is it possible to harden or reduce every potential target physically. A method to extend guardianship is to rely on technology. The proliferation of closed circuit television (CCTV) cameras to monitor public spaces to deter crime and terrorist activity is an example of using technology to increase guardianship.<sup>78</sup> Scholarly studies, using the rational choice theory, conclude that raising the risk of apprehension can deter bad actors.<sup>79</sup> Research on the deterrence effect of biometric census information is sparse due to the obvious privacy issues within the United States. Stripping away anonymity was one of the purposes of the 911 Commission recommendations to establish a national identification card, biometrics not included, in the United

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<sup>76</sup> Trent and Doty, “Marketing: An Overlooked Aspect of Information Operations”:72.

<sup>77</sup> Francis Cullen and Robert Agnew, *Criminological Theory* (Los Angeles: Roxbury, 2003), 269.

<sup>78</sup> Thomas, J.Nestel III, Using Surveillance Camera Systems to Monitor Public Domains: Can Abuse be prevented? *Naval Postgraduate School Thesis*, (Naval Post Graduate School, March 2006), 75.

<sup>79</sup> Ross L. Matsueda and Derek A. Kreager and David Huizinga, “Deterring Delinquents: A Rational Choice Model of Theft and Violence” *American Sociological Review*, Vol. 71, No. 1 (February 2006), 95.

States.<sup>80</sup> The amount of public backlash, discussed in depth later in this paper, due to privacy issues indicate that a biometric census in an active counterinsurgency campaign outside the United States will have deterrent effects.<sup>81</sup>

Finally, the biometric census can strengthen the legitimacy of the host nation governance through the routine use of the information to confirm the identity of members of the population. This routine use takes the form of many logical applications. For instance, census information can verify and vet the rolls of local national work forces and security personnel.<sup>82</sup> This disciplines or limits corruption of payroll through biometric identification. The use of this technology limits the corruption caused by identification papers counterfeiting. The census can register displaced people, register voters, settle property disputes, and limit corruption when distributing humanitarian assistance supplies. These are just a few of the possible uses of census information to help build the legitimacy of the host nation government.

### **Unintended Benefits Internal to the Counterinsurgent Force**

The conduct of a biometrically supported census as part of a counterinsurgent campaign plan also benefits the counterinsurgent force internally. These benefits to the counterinsurgent force are evident at the individual soldier level, the group level, and the organization level.

At the individual soldier level, the conduct of the census improves individual motivation. By nature, a counterinsurgency campaign plan is long, complex, and difficult to grasp at the

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<sup>80</sup> William M. Clarke, Rethinking the Real ID Act and National Identification Cards as a Counterterrorism Tool, *Naval Post Graduate School Thesis*, (Naval Post Graduate School, December 2009), 1.

<sup>81</sup> United States Congress Research Service, *The Real ID Act of 2005: Legal, Regulatory, and Implementation Issues*, Washington, D.C.: (Congressional Research Service Report for Congress, April 1, 2008), 6.

<sup>82</sup> *DoDvClips*, "The DoD's Biometrics Task Force is Developing Cutting Edge Technology to Help Troops Identify Friend from Foe on the Battlefield" YouTube upload 20 May 2009. [http://www.youtube.com/watch?v=EkkG\\_Dfplkc&feature=related](http://www.youtube.com/watch?v=EkkG_Dfplkc&feature=related) (accessed 20 March 2011).



soldier level. In a counterinsurgency campaign, it is difficult for the soldier participating in it to see or experience progress. A counter example is the Allied offensive in Europe in World War II. While facing many other extreme challenges, the soldiers participating in that offensive fundamentally understood that the end state of the campaign terminated in the occupation of Berlin.<sup>83</sup> Each kilometer of progress across the continent through the summer of 1944 by fire, maneuver or just movement, was one-step closer to victory and conflict termination. Purpose, direction and motivation were self-evident. In a counterinsurgency campaign, the focus is on influencing the indigenous population, an effect that occurs over time and is difficult to demonstrate to the individual soldier participating in the campaign.<sup>84</sup>

The counterinsurgent force leaders can combat this motivational problem in individual soldiers by making meaning of the campaign and the individual soldier actions as part of that campaign. Unit leaders convey meaning to the soldiers through periodic progress reports and success stories using the ethnological products and narratives gathered by the soldiers themselves during the conduct of the census. It is easy to imagine the positive feedback that comes with either of the two earlier described vignettes regarding the capture of insurgents.

The behavioral science concept at the heart of this idea is the Expectancy Theory of Motivation.<sup>85</sup> This theory of motivation emphasizes the relationship between whether an individual thinks they can perform the task, will the individual receive positive feedback from their leader for performing the task, and how much the individual values the reward feedback provided by the leader. The theory proscribes that these relationships are multiplicative in nature

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<sup>83</sup> Paul Fussell, *The Boy's Crusade: The American Infantry in Northwest Europe, 1944-1945* (New York: Random House, Inc., 2003), 11.

<sup>84</sup> David Finkel, *The Good Soldiers* (New York: Farrar, Straus and Giroux, 2009) 263-273.

<sup>85</sup> Richard Hughes, Robert Ginnett, and Gordon Murphy, *Leadership, Enhancing the Lessons of Experience, Fifth Edition* (New York: McGraw Hill Custom Publishing, 2006), 262-264.

and therefore if any one of them is zero, motivation will be zero. Influencing the indigenous population is a complex and difficult task. The counterinsurgent leadership builds the individual soldiers expectancy that they can accomplish the task through feedback that demonstrates the sifting process of the census operation is uncovering the information required to influence the population in an iterative manner. Conveying meaning to their actions increases the soldiers' motivation.

A second effect on the individual soldier is that it establishes a contextual reference of the battlefield. The concept is that the more familiar the individual soldier is with their area of operation, the lesser the fear of the unknown outside the wire, the better split-second decisions the soldier will make under stressful conditions. Award-winning author Malcolm Gladwell describes this concept thoroughly in his book, *Blink, The Power of Thinking Without Thinking*. Gladwell asserts that lacking the full context of a situation, an individual under stress will rapidly fill in the contextual gaps with their own stereotypes, bias, and experience, sometimes with disastrous results.<sup>86</sup>

Imagine the individual soldier in the turret of a combat vehicle positioned behind an automatic weapon on a dark night in an unfamiliar area comprised of complex terrain inhabited densely by the indigenous population he is there to protect and influence. The quick shadowy movements in the palm grove across a canal between compounds may trigger that individual soldier to begin perceiving his environment as hostile, greatly increasing the chance of lethal contact. Contrast this scenario with a second. The same soldier conducted census operations in that neighborhood the previous week and is more familiar with his surroundings. The fact that he

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<sup>86</sup> Malcolm Gladwell, *Blink, The Power of Thinking Without Thinking* (New York: Little Brown and Company, 2001), 189-241.

actively participated in sifting through the population of his area of operations in a census allows him to understand the context of the situation. He knows that an extended family lives in those two compounds and that family is comprised of many children. His context is entirely different and his start point for discerning the situation is that the shadowy movement is most likely not hostile. Equally, this soldier is much more likely to notice when something is out of place in the environment with which he is familiar. The census operation has the effect of a parent showing a small child that there is not a monster in the closet prior to tucking the child into bed. These positive effects at the individual soldier level, in turn, influence the counterinsurgent unit and the population in a reinforcing manner over time.

Consider the benefits at the group level, meaning at the company and platoon level. At the group level, the effects of conducting a census also have positive impacts. The systematic process of sifting through the population and gathering information that the counterinsurgent force can use to further influence the population adds structure to what is an otherwise the unstructured task of conducting operations in a complex environment. This is the behavioral science concept of the Path-Goal Theory.<sup>87</sup> It is the leader's perception of how the soldiers perceive the situation and the leader's actions to provide them a path to success that is important in Path-Goal Theory. The sifting of the population of the census provides that path to the unit. The periodic but increasing success in stripping away the anonymity of the insurgents and the iterative nature of uncovering the narratives involved in the area of operation all demonstrate progress along the path. The groups or sub-units participating in the census operation take ownership for their areas of operations and the completion of the census. Each small success builds upon the previous. Healthy intra-group competition builds unit cohesion, esprit, and

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<sup>87</sup> Hughes, Ginnett, and Murphy, *Leadership, Enhancing the Lessons of Experience*, 378-385.

motivation. All of these benefits at the group level contribute to the benefits realized at the organizational level.

At the brigade combat team and battalion task force level, the organizational level, the most important benefit realized is the impact on the organizational culture of the unit. Behavioral science expert Doctor Edgar Schein points out that one of the primary mechanisms for embedding behavior in an organization's culture is how and what the commander tells the organization is important.<sup>88</sup> Placing a great amount of emphasis on the collection of information from the indigenous population in order to influence them to support the counterinsurgent keeps the organization focused on following Galula's Theory. It keeps the counterinsurgent campaign population centric vice enemy centric and thus wards off the potential pitfalls of heavy-handed practices. Schein further argues that one of the primary reinforcing mechanisms for embedding behavior in the organization is through publication of standard practices that reinforce desired behavior.<sup>89</sup> The publication of a campaign plan that includes the directive and procedures for conducting the census reinforces the population centric focus of the counterinsurgent force. Finally, Doctor Schein further advises that one of the most important ways to embed behavior in organizational culture is how and for what the leadership of the organization rewards and punishes subordinate units and individuals.<sup>90</sup> The iterative nature of a census allows for an ideal situation in which to reward subordinate units that are successfully sifting the population and achieving results. Maintaining a healthy organizational culture in a front line combat unit over an extended counterinsurgency campaign in a complex and dangerous environment is a difficult

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<sup>88</sup> Edgar Schein, *Organizational Culture and Leadership*, 4<sup>th</sup> Ed. (San Francisco: Wiley and Sons, Inc, 2010), 236.

<sup>89</sup> Schein, *Organizational Culture and Leadership*, 236.

<sup>90</sup> Schein, *Organizational Culture and Leadership*, 236.

task. The conduct of a census combined with appropriate leader behavior can make that task easier.

## Conclusions and Recommendations

In conclusion, a biometrically supported census is an effective measure to control the population in a counterinsurgency campaign plan. While census operations are not a concept fully introduced into United States Army doctrine, this paper presents a theoretical foundation for the effective use of census operations. Units in the field are incorporating census operations into their campaign plans and the proper equipment and technology are available to support these operations. There are challenges to consider prior to employing a biometrically supported census. It is appropriate to look at these challenges at the strategic, operational, and tactical levels and provide recommendations to overcome these challenges.

At the strategic level, the threat posed to people's civil liberties is the biggest challenge. This paper is not advocating the collection of biometric identities as part of a census for citizens of the United States. For instance, all the violation of rights arguments against the United States Congress' Real Identification Act of 2005 do not apply because these census operations take place in another country with the population of that country.<sup>91</sup> While the use of biometrics has interesting and significant potential in homeland security, it also has significant constitutional obstacles.<sup>92</sup> That is not the purpose of this paper. It is, however, interesting to speculate as to whether U.S. citizens' concerns with civil liberties violations might dissipate as the threat to the U.S. homeland increases. That type of situation may more closely resemble the need for using

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<sup>91</sup> United States Congress Research Service, *The Real ID Act of 2005: Legal, Regulatory, and Implementation Issues*, 6-14.

<sup>92</sup> Catherine M. Black, "Legal Implications of the Use of Biometrics as a Tool to Fight the Global War on Terrorism" (*Master of Military Art and Science*, United States Army Command and General Staff College, 2008), 42-62.

biometric supported census operations as a population control mechanism in a counterinsurgency campaign outside the United States. It is through the lens of these concerns that the United States needs to establish policy on the use of biometrics that represents the nation's values and respect for human rights.

The actual strategic challenge to consider is how the indigenous population, of the country in which the counterinsurgent force is operating, feels about the collection of biometric identities. There are two situations to consider. First, the counterinsurgent force is operating in a country where no host nation government exists, as U.S. forces were in Iraq prior to the transfer of authority from the Coalition Provisional Authority to the Interim Iraqi Government in June of 2004.<sup>93</sup> The second situation is one in which the counterinsurgent force is taking part in a third party counterinsurgency campaign supporting a host nation such as the current situations in Iraq and Afghanistan. In both situations, U.S. forces have a responsibility to adhere to the Laws of Armed Combat (LOAC), the Geneva Convention, and other treaties governing the conduct of military operations. The collection of biometric identities only reinforces the principles of these conventions, especially the principle of distinction or distinguishing between combatants and non-combatants. In the complexity of the current operating environment, including new technologies and non-state actors, the international norms for the use of biometrics are not yet fully mature. The trend is that "the approach to the control of force in armed conflict as the exclusive domain of international humanitarian law is facing an intensified effort to have it encompass human rights norms and their associated accountability structure."<sup>94</sup> The standard for

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<sup>93</sup> L. Paul Bremer, III, *My Year in Iraq: The Struggle to Build a Future of Hope* (New York: Simon and Schuster, 2006), 392.

<sup>94</sup> Kenneth Watkin, "Controlling the Use of Force: A Role for Human Rights Norms in Contemporary Armed Conflict" *The American Journal of International Law*, Vol. 98, No. 1 (January 2004), 9.

using biometrics remains to protect human dignity and use the information only for the purposes of maintaining the rule of law.

The second situation, the case of third party counterinsurgency, requires prior coordination and approval of the host nation government. This approval, based on local laws and culture, may be difficult to obtain. In the Afghanistan campaign, in the summer of 2010, NATO forces began an operation to collect biometric identities of the population of Kandahar, “but the program was abruptly pulled when Karzai saw a picture of one of the biometric checkpoints in *Newsweek*, a U.S. military official told Danger Room. Karzai declared the scanning to be an infringement of Afghan sovereignty, and put the kibosh on the whole thing.”<sup>95</sup> These controversies eventually lead to the Afghan Government creating a national identification card program that included a computer chip containing identification data in December of 2010.<sup>96</sup> Unfortunately, this lead to the development of two different biometric data bases, one by the Afghan Government and the other by NATO forces. NATO forces continue, with Afghan approval, to collect biometric identities on those that they capture and those that they hire, but any other collection from citizens is on a voluntary basis. The Afghan government program is mandatory, parallel to the NATO system, and not interoperable.<sup>97</sup> This vignette is about sovereignty issues and civil liberties issues. The recommendation is that counterinsurgent forces

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<sup>95</sup> Schachtman, “Army Reveals Afghan Biometric ID Plan; Millions Scanned, Carded by May” <http://www.wired.com/dangerroom/2010/09/afghan-biometric-dragnet-could-snag-millions/> (accessed 8 December 2010).

<sup>96</sup> Michelle Nichols, Afghanistan Plans National Electronic ID Cards, *Reuters*, December 12, 2010, <http://www.reuters.com/article/2010/12/12/us-afghanistan-identification-cards-idUSTRE6BB0P720101212> (accessed 3 April 2011).

<sup>97</sup> Schachtman, “Army Reveals Afghan Biometric ID Plan; Millions Scanned, Carded by May” <http://www.wired.com/dangerroom/2010/09/afghan-biometric-dragnet-could-snag-millions/> (accessed 8 December 2010).

coordinate with and fully explain the purpose behind identification dominance to the host nation government prior to the initiation of a biometrically supported census.

The second strategic challenge directly relates to the first. In a third party counterinsurgent campaign, the creation of a database of geographically linked biometric data demands safeguarding the legitimate use of the data. Consider a situation where members of a specific segment of the population feel the need to change their names in order to protect themselves from communal violence they may suffer from the hands of their own government forces. This was the case in Iraq in 2006.<sup>98</sup> Use of the database for illicit targeting of specific segments of the population based on race, creed, or political orientation is obviously contrary to the customary laws of armed conflict. It is also potentially an information operations disaster in terms of influencing the population to side with the counterinsurgents. The recommendation is that the intervening country must publish strategic policy to ensure the safeguarding of the information for legitimate use prior to including a biometric supported census in the campaign. This policy needs to outline disclosure authorities and procedures to the host nation government and forces. In some cases, the resulting policy might prohibit the disclosure of biometric data to the host nation permanently. The conditions may be that the census database may be technologically and technically, beyond the host nation government to operate and maintain going forward. In some cases, the disclosure policy may be conditional pending the professionalization of the host nation government and security forces. In all cases, these authorities and procedures need to be part of the approval negotiation with the host nation government with clear standards about the ethical use of the biometric and demographic data.

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<sup>98</sup> Edward Wong, "To Stay Alive, Iraqis Change Their Names" *New York Times*, September 6, 2006, <http://www.nytimes.com/2006/09/06/world/middleeast/06identity.html> (accessed 3 April 2011).



At the operational level, the challenges faced by the counterinsurgent force center on standards and architecture.<sup>99</sup> Standards involve the translation of strategic policy into operational concepts for execution. The translation from policy to operational concept is a gap in doctrine. A recommendation is to add the conceptual model for census operations to the next publication of the operational level *Field Manual 3-24, Counterinsurgency*.

Standards also involve establishing protocols for the quantity, type, format, and level of detail of the census data collected. It involves establishing appropriate knowledge management procedures to make the database a useful and searchable resource. Standards also involve the original gridding of the area of operations and enforcement of that addressing system over the duration of the campaign. Finally, standards involve enforcing the slow but steady completion of the census across the entire area of operations. A gap in coverage provides areas of potential sanctuary and defeats the purpose of using the census for population control.

The theater command, control and communications architecture must be capable of supporting the digital sharing of the census data. As Major General Flynn outlines in his article *Fixing Intel: A Blueprint for Making Intelligence Relevant in Afghanistan*, “tactical intel equals strategic intel” in a counterinsurgency campaign.<sup>100</sup> This means that access to the database is as robust at the Company Intelligence Support Team (COIST), the input end, as it is at the operational level headquarters. Commanders and staffs at all levels will use the census data only if they can access it. A recommendation is that communication and automation capabilities and access reach all the way down to access at the company level in order to make the census a viable operation.

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<sup>99</sup> John D. Woodward Jr., “Using Biometrics to Achieve Identity Dominance in the War on Terrorism”:34.

<sup>100</sup> Flynn and Pottinger and Batchelor, “Fixing Intel: A Blueprint for Making Intelligence Relevant in Afghanistan”, 11.

At the tactical level, the challenges to the counterinsurgent force in conducting a biometrically supported census center on doctrine, training and equipping. First, in terms of doctrine, there is a gap at the tactical level as well as the operational level. The recommendation is that the next publication of *Field Manual 3-24.2, Tactics in Counterinsurgency*, includes the tactics, techniques, and procedures for the conduct of a census. In terms of equipping, there simply needs to be enough biometric collection equipment at the tactical level in theater to allow for the feasible execution of a census as part of the campaign. Using analogy, if conducting a census is akin to conducting a reconnaissance patrol, then every squad needs biometric automated tool kits as much as each squad needs binoculars. In order to train properly, there also needs to be enough biometric equipment for units to train to proficiency prior to deployment. Again, using the reconnaissance patrol analogy, there are a whole host of individual skills and collective tasks that require training in order to conduct a reconnaissance patrol. The same is true for conducting a census patrol as described in the methodology appendix of this paper. The challenge for the tactical leader is incorporating that training in an already busy pre-deployment training plan.

These challenges are not minimal, but surmountable given the recommendations. The value in conducting biometric census operations far outweighs the challenges after applying measures to mitigate the risks. The use of biometric supported census operations offers ethical and efficient methods for population control in order to establish a lasting and stable end to counterinsurgencies.

## **Appendix – A Methodology for Conducting Census Operations**

The purpose of this appendix is to describe, in detail, a method for conducting a biometrically supported census. The treatment of this material in the appendix is tactical and practical in nature and supports the overall argument for the conduct of biometrically supported census operations. Ideally, the counterinsurgent force would institute a codified process for conducting a census upon the outset of a counterinsurgency campaign. It is also possible that the primary counterinsurgent force is a third party, invited in late by the host nation when the host nation determines they do not have the capability or resources to counter the insurgent movement. Regardless, the sooner the counterinsurgent force begins implementing an organized, thorough, biometrically supported census, the better. Dissemination of the procedures and standards for collection, labeling, and storage of information are the only limiting factors on how early to begin.

Obviously, the more information collected about the population, the more leverage the counterinsurgent has over the population. The greater the number of biometric identities collected, the greater the success rate at biometric matches in the man-hunting aspect of counterinsurgency. The more information requirements collected from the population, the better the understanding of the narrative that is driving the insurgency. As far as when it is too late in the campaign to begin census operations depends upon the nature of transition to host nation control. Barring a decision to limit the transfer of the results of a census to the host nation government and forces, it is never too late in the campaign to begin census operations. Imagine the situation where the counterinsurgent begins census operations in year one of the campaign and the value of that data base if it is maintained overtime in year six. Likewise, the information garnered in years six through twelve is extremely valuable in assisting the counterinsurgent force in ending the conflict.

## Preparation and Organization

Preparation and organization for conducting census operations begins at home station prior to deployment of the counterinsurgent force. The effort to prepare consists of three major focus areas. First, the counterinsurgent force must organize for intelligence work in counterinsurgency. This reorganization means forming and staffing units or cells at the lower echelons (e.g. brigade, battalion, company, platoon) to handle the increased workload in intelligence collecting, processing, and reporting required in counterinsurgency. A good example for how to accomplish this reorganization is forming Company Intelligence Support Teams or COISTs, which is standard practice now for most United States Army units deploying to Iraq or Afghanistan.<sup>101</sup> Key to this reorganization is that personnel used to fill these organizations need not be intelligence personnel by military occupational specialty. While it is wise to push down trained intelligence analysts from higher headquarters staffs to lower echelons, the main requirement for personnel in COISTs is motivation, basic on the job training, and basic data processing skills. Part of forming these support teams is equipping them with automation, biometric, and communication equipment to allow them to do their job. The timing of this reorganization must take into account the pre-deployment training cycle and personnel turnover of the unit. Obviously, the reorganization needs to occur prior to the collective task training phase and with enough time for units to practice their new trade in any mission rehearsal exercises.

The second effort in preparation for the counterinsurgent force is training on how to conduct a census. This effort includes not just data processing in the COISTs, but also includes the training of maneuver units on how to collect the information out on the battlefield. This training is inclusive of the individual soldier skills required to operate biometric automated tool

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<sup>101</sup> United States Army, *Handbook Number 10-20, COIST: Company Intelligence Support Team*, Fort Leavenworth: Center for Army Lessons Learned, January 2010.

sets (BATS) through collective task training for platoons and companies on how to conduct a cordon and search. As mentioned previously, the reorganization needs to occur with enough pre-deployment time to enable this training. Unit leaders need to understand that it is impossible to duplicate the operating environment at the mission rehearsal exercise. It is probably only possible to replicate some aspects of the operating environment. Unfortunately, due to the limited duration of such exercises, and the vast number of roll players required, it is difficult to replicate the conditions of conducting census operations. That is why additional conceptual leader development is required.

The third effort in preparation for the counterinsurgent force is the professional development of leaders about the conceptual value of census operations in counterinsurgency. Professional development sessions at all echelons focused on how the unit will fight counterinsurgency makes up for the gaps in collective training due to the fact the operating environment cannot be fully replicated in training. Professional development topics focus on theory and doctrine of counterinsurgency. For example, taking the paradoxes of counterinsurgency found in David Kilcullen's *Twenty-Eight Articles*<sup>102</sup> and attempting to conceptually understand and solve them with theory and doctrine is a worthy template for a professional development program. Part of this process is developing conceptually how census operations fit in to the overall counterinsurgency campaign plan. An ideal focus area for these discussions is the conceptual model of a population sifter discussed in the main body of this paper.

For example, the methods of time and resource management in relation to operational direction are crucial over a long campaign. The practice of qualifying operations as surge versus

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<sup>102</sup>David Kilcullen, "Twenty-Eight Articles, Fundamentals of Company-level Counterinsurgency, Edition 1 March 2006) *Small Wars Journal*, <http://smallwarsjournal.com/documents/28articles.pdf> (accessed 1 February 2011).

framework operations is useful.<sup>103</sup> A framework operation is one in which the counterinsurgent force accomplishes a task required for it to survive. For example, combat logistics patrols and defense of combat outposts are framework operations. Surge operations are operations the counterinsurgent force undertakes in order to win. For example, raids, reconstruction projects, humanitarian assistance operations, and census operations are surge operations. It is important to note that census operations provide the background information and intelligence that enable all other surge operations. Understanding the paradoxes of counterinsurgency and the conceptual solutions to those paradoxes is a fundamental aspect of understanding how census operations control the population.

## **Gridding the Area of Operations**

A prerequisite for conducting census operations is the process of gridding or dividing the operational environment into discrete geographic areas. The theoretical foundations portion of this paper addresses the gridding of the area of operations in detail. It is important to stress this aspect of the operation because the system or framework for geospatially fixing the population to locations on the map will endure over multiple years of the campaign. The process of gridding the area of operations also needs to include the type and capabilities of the command, control, and automation tools available to the unit.

## **Recommended Tactics, Techniques and Procedures**

The recommended tactical level operation for conducting a census is a cordon and knock or a cordon and ask, both variations of a cordon and search recently added to United States Army

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<sup>103</sup> Peter R. Mansoor, "Understanding Counterinsurgency Operations, Army." In *Understanding Counterinsurgency: Doctrine, Operations, and Challenges*, Ed. Thomas Rid and Thomas Keaney, (New York: Routledge, 2010), 75-86.

doctrine with the publication of *Field Manual 3-24.2, Tactics in Counterinsurgency* in 2009.

*Field Manual 3-24.2* defines a cordon and search as an operation:

conducted to seal (cordon) off an area in order to search it for persons or things such as items, intelligence data, or answers to PIR (priority intelligence requirements). Effective cordon and search operations possess sufficient forces to both effectively cordon a target area and thoroughly search that target. Usually, this operation contributes to establishing public order and safety, a key establish civil control subtask. It is also one of the techniques used in the “clear” phase of a clear-hold-build operation.<sup>104</sup>

As stated, the purpose of the cordon and search is to search a given objective for persons or intelligence. It provides a less lethal or destructive alternative to a raid in that it allows for greater discrimination in the use of force. The cordon and search, especially the more permissive variants, does provide a good framework for conducting census operations because it provides for isolating the objective in the event that insurgent forces attempt to interfere. After all, the census operation is a sifter attempting to separate insurgents from the population in a hostile environment. A cordon and ask entails that the residents agree to the entry of counterinsurgent forces onto the property. A tactical call out of the residents via a public address system or a megaphone or through an intermediary such as local civil leader or host nation security official can accomplish this task. The goal of the operation is to engage the population in conversation and collect biometric information.

In taking a census, the more permissive variations of cordon and search, the cordon and ask/knock, are more appropriate to achieve the desired effect. Ideally, the counterinsurgent force seeks and gains the cooperation of a local civil authority, either governmental or tribal, to assist in organizing and conducting the operation. The purpose this type of cordon and ask is to collect census and biometric information and a cooperative populace facilitates this purpose. Conducting the operation in a culturally appropriate manner is important. In the case of census taking, the

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<sup>104</sup> *Field Manual 3-24.2, Tactics in Counterinsurgency*, 5-8.

counterinsurgent force cordons the objective in order to isolate it from within and without and then asks or knocks for permission to conduct the census taking. As part of this type of cordon and ask, it is helpful to also conduct simultaneous humanitarian assistance such as distributing relief supplies in exchange for participation in the census. This type of operation also lends itself to information engagements because the counterinsurgent force is in direct contact with the population and can express themes and messages in person.

The size of the force conducting the census operation depends upon the size and population density of the area covered. Typically, this is a maneuver company or platoon operation augmented with enablers from battalion level. Obviously, the unit targeting process balances the counterinsurgent force's operational tempo between surge and framework operations. Routinely, a census operation is a one-day mission to census part of or an entire block of geographic area.

*FM 3-24.2* describes the task organization for a cordon and search as employing four elements: a headquarters element, a cordon element, a search element, and a reserve element.<sup>105</sup> For the purposes of a cordon and ask to conduct a census, the search element is replaced with a survey element. As the decisive effort, the task of the survey element is to collect information about the population. As a shaping effort, the cordon element's task is to isolate the objective area. The outer cordon element isolates the objective from potential threats from outside the objective and isolates the specific residences or compounds the survey element is entering. Thorough rehearsals and direct fire planning ensure isolation of the objective. The reserve element augments either force as required with planning priorities focused on supporting the cordon. The headquarters element commands and controls the operation. If the counterinsurgent force conducts a key leader engagement with a prominent citizen or local leader in conjunction

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<sup>105</sup> *Field Manual 3-24.2, Tactics in Counterinsurgency*, 5-11.



with the census, the engagement duties and control of the operation need de-confliction. This prevents distraction to command and control and mitigates risk to both the friendly force and the population.

The survey element is comprised of teams of soldiers trained and equipped with devices to collect biometric identities. The survey element also consists of teams of soldiers, augmented by an adequate number of interpreters in a third-party situation, to query the population and answer pre-determined information requirements. These information requirements include answering the fields that will correspond with the biometric identity such as name, sex, age, tribe, clan, cell phone number and residence. The information requirements also include unit generated information requirements that enable situational understanding of the population such as land ownership, political party membership, religion, employment, marital status, number of children, education level, and health concerns. An excellent tool for developing unit generated information requirements is the Areas, Structures, Capabilities, Organizations, People, Events (ASCOPE) model described in detail in *Field Manual 3-24.2, Tactics in Counterinsurgency*.<sup>106</sup> Further unit generated information requirements can include questions about essential services using the SWEAT-MSO (sewer, water, electricity, academic, trash, medical, safety and other considerations) model. It is easy to image the wealth of useful information garnered by the counterinsurgent force after questioning a large percentage of the population.

The survey element also includes other enablers or soldiers trained with specific specialties to facilitate the mission. The addition of human intelligence collection teams (HCTs) for example, is an excellent technique to place well-trained collection assets in direct contact with the population. The addition of civil affairs or psychological operations soldiers to the survey

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<sup>106</sup> *Field Manual 3-24.3, Tactics in Counterinsurgency*, 1-10.

element is an excellent technique to place these assets in direct contact with the population. Home station training with these enablers makes the survey process on the battlefield much smoother.

The collection of information by the survey element is laborious and time consuming. The survey elements collect the information in an assembly line with stations to collect biometric data and stations for the citizens to answer survey questions. Often, these conversations are three way conversations between the citizen, an interpreter, and the counterinsurgent soldiers. The counterinsurgent force develops procedures for marrying the biometric data with the survey information during the patrol de-briefs process back at the counterinsurgent's base.

In summary, it is obvious that the methodology and the tactics, techniques, and procedures for the conduct of census operations require thought, resources, and training during the pre-deployment preparation for combat. The counterinsurgent force needs to understand both the conceptual purpose of the census and the technical skills required to execute the operation. The conduct of the census is similar to many other non-standard tactical tasks counterinsurgent forces find themselves executing during a campaign. Prior preparation is the key to successful execution of these tasks.

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